VSB — TECHNICAL UNIVERSITY OF OSTRAVA

FACULTY OF ECONOMICS

DEPARTMENT OF FINANCE

Zhodnocení finanční situace společnosti China Telecom Corporation Limited

Financial Situation Assessment of China Telecom Corporation Limited

Student: Xiaoshan Feng

Supervisor of the bachelor thesis: Ing. Ingrid Petrová, Ph.D.

Ostrava 2016

VŠB - Technical University of Ostrava
Faculty of Economics
Department of Finance

Bachelor Thesis Assignment

Student: **Xiaoshan Feng**

Study Programme: B6202 Economic Policy and Administration

Study Branch: 6202R010 Finance

Title: Financial Situation Assessment of China Telecom Corporation Limited
Zhodnocení finanční situace společnosti China Telecom, s.r.o.

The thesis language: English

Description:

1. Introduction
2. Description of the Financial Analysis Methodology
3. Profile of the Company
4. Evaluation of Financial Situation of the Company
5. Conclusion

Bibliography
List of Abbreviations
Declaration of Utilisation of Results from the Bachelor Thesis
List of Annexes
Annexes

References:

HIGGINS, Robert C. *Analysis for Financial Management*. 10th ed. New York: McGraw-Hill/Irwin, 2012. 459 p. ISBN 978-0-07-803468-8.
ITTELSON, Thomas R. *Financial Statements: A Step-by-Step Guide to Understanding and Creating Financial Reports*. Pompton Plains: Career Press, 2009. 285 p. ISBN 978-1-60163-023-0.
ROBINSON, Thomas R. *International Financial Statement Analysis*. Hoboken: Wiley, 2009. 828 p. ISBN 978-0-470-28766-8.

Extent and terms of a thesis are specified in directions for its elaboration that are opened to the public on the web sites of the faculty.

Supervisor: **Ing. Ingrid Petrová, Ph.D.**

Date of issue: 20.11.2015
Date of submission: 06.05.2016

Ing. Iveta Ratmanová, Ph.D.
Head of Department

prof. Dr. Ing. Dana Dluhošová
Dean of Faculty

"I hereby declare that I have elaborated the entire thesis including annexes myself."

Ostrava dated 06.05.2016

Feng Xiaoshan 冯小珊

Student´s name and surname

Contents

1 Introduction

How an investor knows if a company deserved to be invest, or what are the basis of banker to decide if they can make loan to a company. The answer is to know the financial situation of company. The analyst evaluates a company through the financial reports, which includes financial statement and the general development over a year of company, then uses the data to evaluate the past and current performance of company. Also for company, the situation of company can provide decision maker make better strategic and introspect past, correct the unwise decision.

China Telecom Corporation Limited is a leader of telecommunication industry, which has 16 years of experience in telecommunication technology. As the main body of China's largest telecommunications companies and basic network operators, China Telecom Corporation Limited has the world's largest fixed-line telephone network that covers urban and rural areas, accessible around the world, including the member units all over China 31 provincial-level enterprises. The year when China Telecom Group was established, namely 2002, "Fortune" gave the "World's Most Admired Companies" prize to China Telecom Corporation Limited. No matter how much award China Telecom Corporation Limited has been gave, they keep their step on provide more convenient for more citizens, and keep their motto “World at your fingertips”.

The goal of the thesis is to evaluate the financial situation of China Telecom Corporation Limited by using of financial reports for period 2010-2014.

There are five parts in this thesis, first part and last part is introduction and conclusion.

In Chapter 2, we will focus on the description of the financial analysis methodology and it is the most important part. As the theoretical parts, in which we will explain the methods we will use for analyzing and evaluation of financial position of the company. We will define the common-size analysis, financial ratio analysis and pyramidal decomposition.

In Chapter 3, we will introduce the profile of China Telecom Corporation Limited, from the history, leadership and also the competition on telecommunication industry.

The evaluation of company performance evaluation will be made in chapter 4, through using the suitable methods, all results are based on financial statement of China Telecom Corporation Limited (2010-2014), then we will combine the reality to analyze the situation we founded by financial analysis.

By these three chapters, we can see the complex data become the theoretical situation of the company, it is an efficient way to figure out if this company healthy or not, and make the investor more clearly to know their choices.

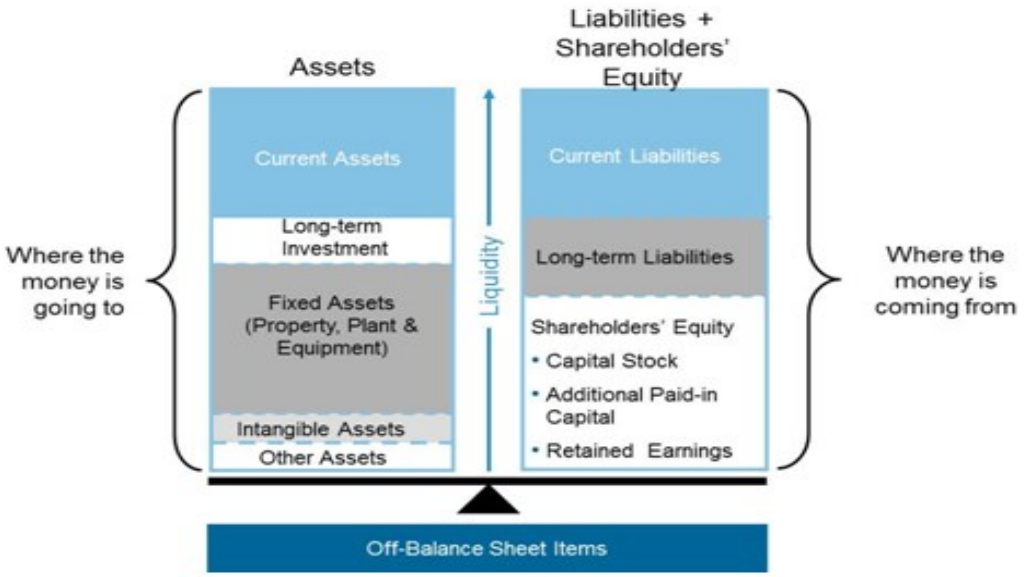
2 Description of the Financial Analysis Methodology

In this chapter, we will introduce the method of financial analysis. To analyze a company, we can use kinds of method, but each method has its unique significance. The beginning of analyzing company's situation is to know the financial statement. This chapter is based on Dluhošová (2014), Higgins (2012) and Zmeškal (2004).

2.1 Financial statements

Analyze a company's health, we must take financial statements of the company into consideration. We can say financial statement is a company's health report. From company's annual report, we can get the whole financial statement, it includes balance sheet, income statement and cash flow statement. About balance sheet, it is a statement that can reflect a company's situation by summarize the information of the company using assets, liabilities and equity at a given point in time. The structure of balance sheet can be as follows.

Image 2.1 The structure of balance sheet



Source: https://edupristineblogdotcom.wordpress.com/balance-sheet-template-learn-to-develop-balance-sheet-in-excel/.

From the Image 2.1, we can see the balance can be expressed as the asset of a company should equal to the mix of capital for financing of company's assets:

$$Assets = Equity + Liabilities \quad (2.1)$$

Assets are the things company owes, like cash, inventory, land, equipment and so on. That means the assets have value, and these value need to be listed on balance sheet. Assets can be divided into current assets and non-current assets, current assets are the assets, which can be quickly converted into cash, such as cash, account receivable. And non-current assets are mostly more than 1 year, and the amount didn't change according to the production, such as the rent fee of building, and the infrastructure. Liabilities are the debts of company such as the money borrow from bank or other creditors. Liabilities are categorized by current liabilities and long-term liability. Equity is the value of the shareholders' investment in the company, which includes retained earnings and share capital. The financial statement is generated as where the money is going to and where the money is coming from.

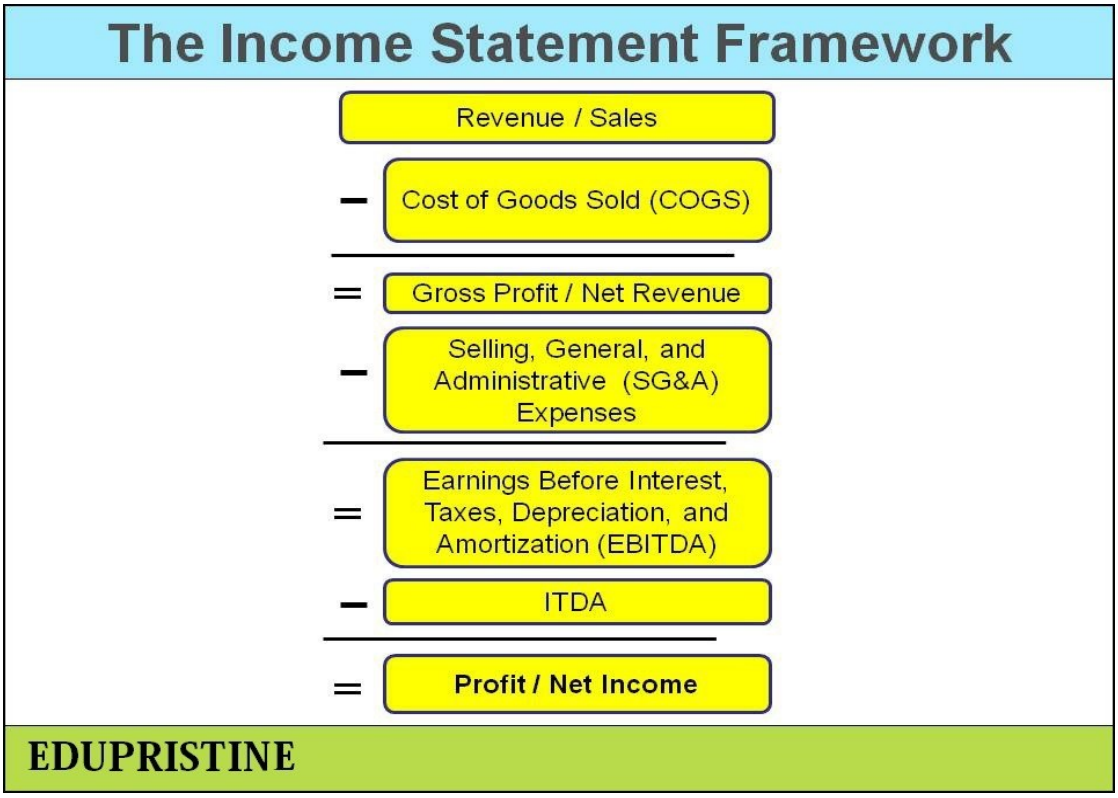
About income statement, it reflects company's profitability. It is a statement to compare the company's revenues and expenses for the total amount of profit over a certain period. Also shows the profit and expense of operating activity and non-operating activity, such as taxes and interests.

From income statement, we can know the health of the production. Equation 2.2 shows the relationship from a basic equation:

$$Revenues - Expenses = Net\ income \quad (2.2)$$

The movement of goods to customers' minus efforts to make and sell those goods equals any value created in the process. Image 2.2 shows the framework of income statement.

Image 2.2 The income statement framework



Source: http://www.edupristine.com/blog/income-statement-template-in-excel.

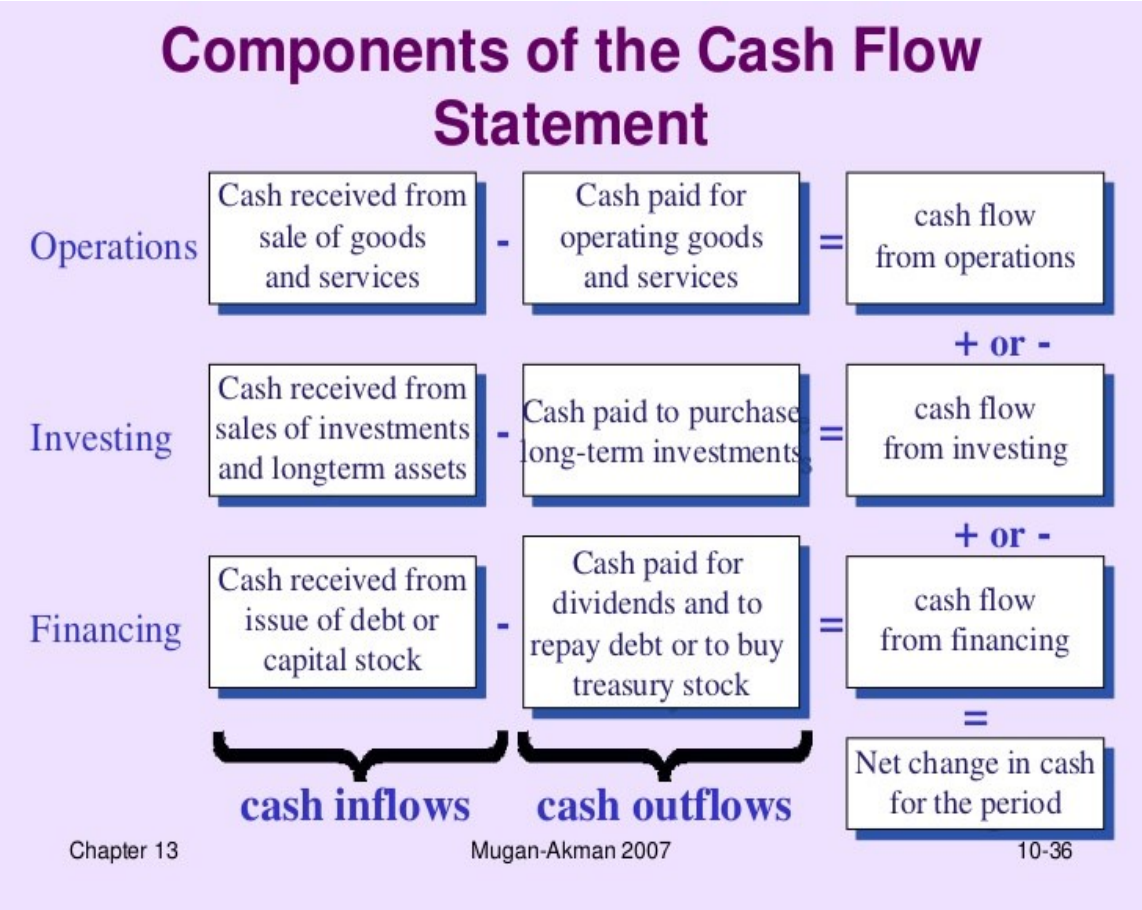
From Image 2.2, we can see the net income is the most important item of the income statement, and net income is get from all revenues minus all expenses. The items such as earnings before interest and taxes and earnings per share are also very important for evaluating the company's situation.

After knowing the sources and uses of cash by a company, we need to consider the cash flow statement, which provides information about a company's cash inflows and cash outflows during a period. It considers the operating activities, investing activities and financing activities. The basic relationship is:

$$Net\ cash\ \ flow = sum\ of\ \ inflows - sum\ of\ \ outflow \tag{2.3}$$

Image 2.3 shows the components of cash flow statement.

Image 2.3 Components of cash flow statement



Source: http://www.slideshare.net/chengolayvar/cash-flow-statement-finac-4.

When we analyze the company's situation we need to concern the balance sheet, income statement and cash flow statement. And to select suitable methods and evaluate these financial data. The methods can be divided into three groups such as: common-size analysis, financial ratio analysis and pyramidal decomposition.

2.2 Common-size analysis

Common-size analysis is a general evaluation of company's situation, we can use horizontal analysis and vertical analysis to evaluate.

2.2.1 Vertical analysis

In general, vertical analysis is a popular method of financial statement, this analysis method shows the component of percentages of the items in a statement over the time, also can say it is an analysis of the changes in the proportions of selected benchmarks, this selected benchmarks can be the total amount or an important benchmark. Equation 2.4 shows the calculation of vertical analysis.

$$percentage = \frac{amount\ of\ the\ item}{amount\ of\ benchmark} \tag{2.4}$$

Such as the items to its total assets on the balance sheet or the net sales on the income statement. Through this analysis, we can know if this component of the items is important according the percentages.

2.2.2 Horizontal analysis

Horizontal analysis is the comparison of one item in different period. In other words, it is a method that compare base year with comparison year. In financial statement, we usually use a base year as benchmark then calculate the relative change and compare the performance of various companies.

$$Relative\ change = \frac{x_1 - x_0}{x_0}, \tag{2.5}$$

where x_1 represents the amount of the item in comparison year, and x_0 represents the amount of the item in base year.

2.3 Financial ratio analysis

Financial ratio analysis uses the relative data of important items to compared with each other, and the ratios can be used to analyze and evaluate the management, historical financial situation of the company. It is a basic instrument of financial analysis.

As to the different aims and different needs. There are five main ratios for analyzing the company's different ability, such as liquidity ratios, leverage ratios, activity ratios, market-based ratios, and profitability ratios.

2.3.1 Liquidity ratios

Liquidity ratios can be used to measure the ability of a company to meet its short-term obligations. This ratio can figure out the company's liquid assets which includes cash and other securities can be quickly converted into cash and short-term debts and liabilities. There are three basic ratios in this subject. Current ratio can measure the amount of current assets for every unit in current liabilities, equation 2.6 shows the formula.

$$current\ \ ratio = \frac{current\ \ assets}{current\ \ liabilities} \tag{2.6}$$

Higher of this ratio means company has more ability to pay the short-term obligation. Followed by shows the calculation of quick ratio.

$$quick\ \ ratio = \frac{current\ \ assets - inventories}{current\ \ liabilities} \tag{2.7}$$

The difference between quick ratio and current ratio is quick ratio exclude inventories, because inventories have been paid in advance, they cannot convert into cash quickly. That made quick ratio is more precise than current ratio. The last ratio of liquidity is cash ratio, by calculating the total amount of cash and cash equivalents to measure the liquidity of the company's assets, this ratio can reflect the company's situation when they do not rely on sales of receivables on the current capacity to pay debt, it is one of the indicators to measure the

company's short-term risk. Higher cash ratio, greater the ability to repay short-term obligation.

The following formula used to calculate cash ratio.

$$cash\ ratio = \frac{cash + marketable\ securities}{current\ liabilities} \tag{2.8}$$

In general, when a company has calculated these three ratios, usually the quick ratio is more precise than other two ratios for measuring the ability to meet short-term obligations of a company.

2.3.2 Leverage ratios

Leverage ratio is useful for measuring the company's ability to meet long-term obligations, sometimes we can also call it solvency ratios. There are some basic types of leverage ratios. One of the leverage ratio is debt ratio, followed by shows the formula.

$$debt\ ratio = \frac{total\ debts}{total\ assets} \tag{2.9}$$

This ratio is always positive because of the amount of debt and assets should always larger than zero. Debt ratio focus on what percentage of the company's assets is financed by debt. Higher of this ratio means riskier of company lead to weaker ability to pay long-term obligation. When debt ratio equal to one, we can know all the assets are financed from debt. Next we will focus on debt-to-equity ratio.

Equation 2.10 shows the formula of these ratio.

$$debt\text{-}to\text{-}equity\ ratio = \frac{total\ debt}{quity} \tag{2.10}$$

Similar to the debt ratio, this ratio measures the amount of the company's debt relative to company's equity. When debt-to-equity ratio equal to one, we can know all the equity are financed from debt, but when debt-to-equity ratio larger than one, the company uses more

debt than equity.

The following shows the equation of interest coverage.

$$\text{interest coverage} = \frac{\text{operating profit}}{\text{interest paid}} \tag{2.11}$$

Interest coverage can tell the extent to which the company's operating profit is able to meet current interest payments. Higher of interest coverage, company has more ability to pay interest. When interest coverage equal to one, means whole operating activities were used for interest payments.

2.3.3 Activity ratios

We can use activity ratios to measure how well a company uses its assets and to indicate how much a company invested in a particular assets relative to the revenues that the assets are generating. We can also know that assets efficiency utilization has a direct impact on liquidity. There are four main types of ratios. The following is the formula of calculating the average collection period (ACP).

$$ACP = \frac{\text{accounts receivable}}{\text{revenues}} \cdot 360 \tag{2.12}$$

Average collection period measures the conversion of accounts receivable into cash, accounts receivable sell product on credit, the average collection period is the number of the date need to wait and get money.Shorter the average collection period is, more quick to get money back. Following is the equation of accounts receivable turnover (ART).

$$ART = \frac{\text{revenues}}{\text{accounts receivable}} \tag{2.13}$$

Account receivable turnover used to know how many times the accounts receivable is rolled over during a year. When the result of account receivable turnover is higher, means the company can make more profit. We can see following equation of inventory turnover (IT).

$$IT = \frac{costs\,of\ goods\,sold}{average inventory} \tag{2.14}$$

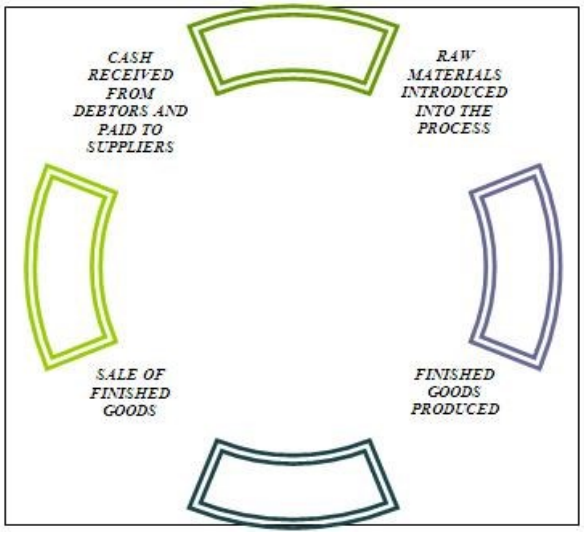
This turnover measures the times inventory is sold or used in a time period such as a year. Shorter the turnover is, the lower the number of days of inventory on hand. Equation 2.15 shows the formula of total assets turnover (TAT)

$$TAT = \frac{revenues}{total\ assets} \tag{2.15}$$

It is an efficiency ratio which tells how successfully the company uses its assets to generate revenue, the larger of total assets turnover, each unit of one price can get more profit.

Here we can use an operating cycle to generate the ratio:

Image 2.3 Operating cycle



Sources: http://www.bayt.com/en/specialties/q/148825/what-is-meant-by-operating-cycle/.

This cycle reflects the order of the operating activities. First we get cash, then we use cash to purchase the inventory, such as raw materials. When we have inventory, we can put them into production, after that, we got final product and sold them on credit or cash, then

will start the cycle again and again. The times of the operating cycle worked we called it turnover. As for seller, they looking forward more times the cycle works.

2.3.4 Market-based ratios

Just as its name implies, it is based on financial and market data that means these ratios depend on market supply and demand. But the market-based ratios only for company whose share can be sold or bought on financial market.

There are four types of measuring, firstly, we will focus on earnings per share. The equation of earnings per share (EPS) as follows.

$$EPS = \frac{net\,income}{number\,of\ shares} \tag{2.16}$$

The earnings of company can be divided into two parts, one for dividend, another is to reinvest or retained. A higher value of this ratio, means positive expectation of investors resulting in an increase in the market price and company value. Next formula shows the calculation of price-earnings ratio (P/E).

$$P/E = \frac{market\ \ share\ \ price}{EPS} \tag{2.17}$$

The P/E ratio measures how much an investor in common shares pays per unit of current earnings. Followed by is the equation of payout ratio.

$$payout\ \ ratio = \frac{dividend\ \ per\ share}{EPS} \tag{2.18}$$

The dividend payout ratio provides the information how much earnings used to pay dividend. The last one we focus on is dividend yield. The following is the equation of this ratio.

$$dividend\,yield = \frac{dividend\,per\ share}{share market\,price} \tag{2.19}$$

The dividend yield indicates how much a company pays out in dividends each year relative to its share market price.

2.3.5 Profitability ratios

It is a ratio that measure the company's ability to generate profit from invested capital during a period according to the balance sheet. In profitability ratios, the higher the profitability ratios are, the better financial situation of the company. As for operating profit margin (OPM), we can see the formula as follows.

$$OPM = \frac{EBIT}{revenues}, \tag{2.20}$$

where *EBIT* means Earnings before Interests and Taxes.

In this formula, earnings before interests and taxes are also can express as operating profit, and operating profit is the difference between operating revenues and expense. Through the formula, we can know this ratio can measure the overall operating efficiency, to figure out how well the company manages its operations. Next we can see the formula of net profit margin (NPM)

$$NPM = \frac{EAT}{revenues}, \tag{2.21}$$

where *EAT* means Earnings after Taxes.

In the formula, the earnings after taxes also can express as net profit, net profit of a company can be negative or positive of the relationship between revenues and expenses. By this ratio, we can measure the company's ability to control the level of expenses relative to revenues generated. One of the important ratio for evaluating the company's health is return on assets (ROA). Equation 2.22 shows the equation of return on assets:

$$ROA = \frac{EAT}{assets} \tag{2.22}$$

This ratio figures out net profit as a percentage for every unit of company's assets. Higher this ratio is; the owners get more profit. The another one we need to focus on is return on equity (ROE).

The formula is as follows

$$ROE = \frac{EAT}{equity}. \tag{2.23}$$

By using this ratio, we can measure that how many profit from capital provided by owners of company.

In the profitability ratios, ROE and ROA can be decomposed to analyze which factors have impact on its value, we will discuss on next chapter.

2.4 Pyramidal decomposition

After we defined different methods to analyze the company, we need to find out which factors have impact on its value of financial ratios. By using pyramidal decomposition, we enable to express basic ratio as a product of component ratios. Through decomposition, the financial analyst is allowed to take a closer look at the factors that are controllable by a company's management such as asset turnover and those that are not controllable such as tax retention. We have known the basic ratio is profitability ratio, and they are influenced by liquidity, leverage and activity of the company. In general, the most frequently decomposed are ROE and ROA. We can call it DuPont analysis.

ROE decomposed into three components as follows:

$$ROE = \frac{\text{net income}}{\text{revenues}} \cdot \frac{\text{revenues}}{\text{total assets}} \cdot \frac{\text{total assets}}{\text{equity}} \tag{2.24}$$

We can know from the mentioned chapter, these three components are net profit margin, assets turnover, and financial leverage.

ROE decomposed into five components as follows:

$$ROE = \frac{EAT}{Equity} = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{REV} \cdot \frac{REV}{Assets} \cdot \frac{Assets}{Equity} \tag{2.25}$$

In the decomposition of ROE, EAT represents Earnings after Taxes (net profit), EBT represents Earnings before Taxes, EBIT represents Earnings before Interests and Taxes. Whereas EAT/EBT represents the tax burden, and EBT/EBIT represents the interest burden.

If we take taxes and interests into consideration, we need to separate the effects of them, so we should decompose the profit margin into tax burden, interest burden, and operating burden.

ROA decomposed into three components as follows:

$$ROA = \frac{EBIT}{Assets} = \frac{EBIT}{EAT} \frac{EAT}{Equity} \frac{Equity}{Assets} \tag{2.26}$$

From Zmeškal (2004), we can know the main advantage of making decomposition of the basic ratios is that we can know the difference of each synthetic indicator as the sum of particular influences of selected analytical indicators. As for ROE, we can explain by particular influences according to (2.24)

$$\Delta y_{ROE} = \Delta x_{EAT} / rev. + \Delta x_{rev.} / A + \Delta x_A / E, \tag{2.27}$$

where Δy_{ROE} is the total change of the basic ratio, $\Delta x_{EAT} / rev.$ represents the influence of net profit margin, $\Delta x_{rev.} / A$ represents the influence of assets turnover, $\Delta x_A / E$ represents the influence of financial leverage. Then we need to know the absolute deviation as follow.

$$\Delta x_{absolutely} = \frac{x_1 - x_0}{x_0}, \tag{2.28}$$

and the following shows the relative deviation.

$$\Delta x_{relatively} = \frac{x_1 - x_0}{x_0} \tag{2.29}$$

As Zmeškal (2004) have said the quantification of influences is identical for all methods and the decomposition of the total increment is based on the ratio of the partial indicator's increment relative to the total increment, Thus, the equation is as follow.

$$\Delta x_{a_i} = \frac{\Delta a_i}{\sum_i \Delta a_i} \cdot \Delta y_x \tag{2.30}$$

After we have basic information the decomposition, then we can start to explain the methods we use to calculate the influence quantification, and analyze the indicators whose change have caused change in the basic ratio.

2.4.1 Method of gradual changes

This method uses the absolute change to calculate how component ratios affect basic ratios. Here we suppose we decomposed *n-th* component ratios.

Based on *(2.30),* we can generate the composition as follow

$$\begin{aligned}
\Delta x_{a_1} &= \Delta a_1 \cdot a_{2,0} \cdot a_{3,0} \cdot \ldots \cdot a_{n,0} \cdot \frac{\Delta y_x}{\Delta x} \\
\Delta x_{a_2} &= \Delta a_{1.1} \cdot a_2 \cdot a_{3,0} \cdot \ldots \cdot a_{n,0} \cdot \frac{\Delta y_x}{\Delta x} \\
&\vdots \\
\Delta x_{a_n} &= \Delta a_{1,1} \cdot a_{2,1} \cdot a_{3,1} \cdot \ldots \cdot a_n \cdot \frac{\Delta y_x}{\Delta x} \\
\Delta x_{a_1} &= \Delta a_1 \cdot \prod a_{j,0} \cdot \prod a_{j,l} \cdot \frac{\Delta y_x}{\Delta x}
\end{aligned} \tag{2.31}$$

After the calculation, according to the result of Δx_{a_i}, we can order them as the level of influences. The largest one is the indicator which have most impact on basic ratio.

2.4.2 Logarithmic decomposition method

$$\Delta y_x = \sum_i \Delta x_{ai} \tag{2.32}$$

Upside is the basic formula of logarithmic decomposition method. The difference between logarithmic decomposition and gradual change method is the former did not take negative indexes into consideration.

Here we need to get equation from a list of progress. Firstly, from the index of the indicators:

$$I_x = \frac{x_1}{x_2} = \frac{a_{1,1}}{a_{1,0}} \cdot \frac{a_{2,1}}{a_{2,0}} \cdot \frac{a_{3,1}}{a_{3,0}} = I_{a1} \cdot I_{a2} \cdot I_{a3} = \prod_i I_{ai}, \tag{2.33}$$

then, we will make a reformulation as follow:

$$I_x^{(\sum_i \Delta x_{ai} / \Delta y_x)} = \prod_i I_{ai}, \tag{2.34}$$

continue to use logarithmic operation from (2.34)

$$\left(\sum_i \Delta x_{a_i} / \Delta y_x \right) \cdot \ln I_x = \sum_i \ln I_{xai} \tag{2.35}$$

Finally, the impact of the *i-th* component ratio on the change in the basic ratio by logarithmic method can be expressed as

$$\Delta x_{a_i} = \frac{\ln l_{ai}}{\ln l_x} \cdot \Delta y_x \tag{2.36}$$

2.4.3 Functional decomposition method

This method uses relative changes in basic and component ratios.

$$\Delta x^{relative} = R_x = \frac{x_1 - x_0}{x_0} \quad \Delta a_i^{relative} = R_{a_i} = \frac{a_1 - a_0}{a_0} \tag{2.37}$$

Impact of the *i-th* component ratio on the basic ratio, here we suppose three component ratios

$$\begin{aligned}
\Delta x_{a_1} &= \frac{1}{R_x} \cdot R_{a_1} \cdot \left(1 + \frac{1}{2} \cdot R_{a_2} + \frac{1}{2} \cdot R_{a_3} + \frac{1}{3} \cdot R_{a_2} \cdot R_{a_3}\right) \cdot \Delta x \\
\Delta x_{a_2} &= \frac{1}{R_x} \cdot R_{a_2} \cdot \left(1 + \frac{1}{2} \cdot R_{a_1} + \frac{1}{2} \cdot R_{a_3} + \frac{1}{3} \cdot R_{a_1} \cdot R_{a_3}\right) \cdot \Delta x \\
\Delta x_{a_3} &= \frac{1}{R_x} \cdot R_{a_3} \cdot \left(1 + \frac{1}{2} \cdot R_{a_1} + \frac{1}{2} \cdot R_{a_2} + \frac{1}{3} \cdot R_{a_2} \cdot R_{a_1}\right) \cdot \Delta x
\end{aligned} \tag{2.38}$$

In general, the gradual change method takes residue free decomposition into consideration, and the logarithmic method and the method of the functional analysis can reflect simultaneous change of all analyzed indicator, but the condition of using logarithmic method is that the indexes cannot be negative.

3 Profile of the Company

In this chapter, we will introduce the profile of China Telecom Corporation Limited, from the history, leadership and also the competition on telecommunication industry.

3.1 History of China Telecom Corporation Limited

China Telecommunications Corporation (China Telecom) was established on May 17, 2000, with a total registered capital of 33 billion dollars. China Telecom ’s total assets are more than 100 billion dollars, with an annual revenue more than 58 billion dollars. As one of the top three leading telecommunications operators in China, China Telecom ranked 182nd in the 2013 Fortune 500 Companies, also selected as one of the Most Admired Asian Companies and the one of the Best Asia Companies in terms of Corporate Governance by many international esteemed institutes for consecutive years. As an integrated information service provider, China Telecom to provide customers with integrated information solutions, including mobile communications, broadband Internet access, fixed telephony and information technology applications, and other products.

China Telecom Corporation Limited, originally known as "China Posts and Telecommunications Administration." Corporate registration in 1995, separate the functions of the government from those of the corporate. In 1998, postal services, telecommunications sub-camp, began to focus on telecommunication operators. In 1999, China Telecom Corporation Limited s paging, satellite and mobile services are stripped out. In 2000, China Telecom Corporation Limited formally. In 2001, China Telecom Corporation Limited is regrouped again, divided into North and South part. In September 2002, China Telecom Corporation Limited initiated the establishment of China Telecom Corporation Limited, the same year in November, China Telecom Corporation Limited's shares are first listed trading on the Hong Kong Stock Exchange and the New York Stock Exchange. May 2002, the new China Telecom was formally established again, following the former Ministry of Posts and responsible for operational management of communications networks and services. June 2004, China Telecom Corporation Limited combined Hubei Province and more than 10

telecommunications assets into China Telecom Corporation Limited, so far, China Telecom Corporation Limited has basically achieved the goal of communication main business listed as a whole. In December 2004, in the domestic telecommunications industry China Telecom Corporation Limited first proposed strategic transformation, and actively promoted the business forward from the traditional basic network operators to modern integrated information service provider. Then, China Telecom Corporation Limited combined China Mobile and China Unicom set up the China Communications Services Corporation Limited, the same year in December, the company shares listed trading on the Hong Kong Stock Exchange. In 2008, China Telecom Corporation Limited combined the basic telecommunications services of formerly China Satellite Communications Corporation. Same year, China Telecom Corporation Limited purchased CDMA networks and related services from China Unicom to achieve a full-service management. In December, China Telecom Corporation Limited commercial main brand “TianYi” officially released, until now E brand still the trend of communication. In 2010, China Telecom Corporation Limited strategic transformation achieved initial results, achieve continued revenue growth for five consecutive years and show the V-shaped profit reversal, build a good start for full-service management.

In January, China Telecom Corporation Limited transferred China Satcom Guomai Communications shares then become the controlling shareholder. In 2011, China Telecom Corporation Limited propose to continue to strengthen the development of strategic transformation, defined as "leader of smart pipe, provider of integrated platform, participants of content and applications" strive to achieve changes from telephone traffic management to internet flow traffic management. In 2012 China Telecom Corporation Limited Board of Directors formally established. Then China Telecom Corporation Limited received a 4G operating license which issued by the State Ministry of Industry in 2013. In 2014 China Telecom Corporation Limited has been approved to test LTE hybrid network in 16 domestic cities, in August there are 40 cities joined the test.

Until now, China Telecom Corporation Limited has become a leader of the telecommunication industry in China. Also has the goodwill in society which depends on the long history and continued strategic transformation.

3.2 The leadership of China Telecom Corporation Limited

Jie Yang, who become the CEO of China Telecom Corporation Limited at 2015. He has 30 years' experience of operating and management in the telecommunications industry in China. In 1984, he graduated from Beijing University of Posts and radio engineering, followed received a master's degree of communication information management issued by BI Norwegian Business School of Management. He has taken up the post of deputy director of Posts and Telecommunications Administration of Shanxi Province, and general manager of the telecommunications company of Shanxi Province, Vice President of China Telecom Corporation Limited Beijing Research Organization and general manager of China Telecom Corporation Limited Northern Telecom Division, etc. At the time he responsible for Shanxi telecommunications industry, Shanxi telecommunications business revenue growth ranked first in China. At this same time Mr.Yang has entered the field of vision of China Telecom Group, and become one of future training targets in young group. In May 2002, when the telecommunications north-south split, China Telecom Corporation Limited successful dig him from the competitor China Netcom Corporation, then promoted to Group headquarters, and general manager of the North Branch of Telecom, responsible for nine provinces' business development except Beijing.

Required former CEO of China Telecom Corporation Limited, Northern Telecom North China Division must change the way to management and create new ideas, new models, new mechanisms, new image. For two years, Mr.Yang has been busy rushing to the reconstruction of company, making sure a strategic objective for development in China Telecom Group, the company's overall strategic guidance to the main line of comprehensive innovation, pursuit leading efficiency, keeping China Telecom Corporation Limited brand, reputation, business continuity and network in the north.

From May 2006 he was appointed deputy general manager of Telecom Group, in charge of network construction, IT and so on. Then became Group General Manager of the China Telecom Corporation Limited in November 2011. April 2012, he was appointed director of the telecommunications company. December 30, 2015, took the chairman and chief executive

authority. In “Fortune” 2012, he was regarded as No.36 of China's most influential business leaders of the 50 charts.

Xiaowei Yang, Executive Director, president and COO of China Telecom Corporation Limited. Mr. Yang is a senior engineer. He received a bachelor degree from the Computer Application Department of Chongqing University in 1998 and a master degree in engineering from the Management Engineering Department of Chongqing University in 2001. Mr. Yang was the Assistant to Director General and Deputy Director General of Chongqing Telecommunications Bureau, a Deputy Director General of the Chongqing Telecommunications Administration Bureau and a Director General of Chongqing Municipal Communication Administration Bureau. Mr. Yang served as General Manager of the Chongqing branch and the Guangdong branch of the Unicom Group, Vice President of the Unicom Group, Director of the Unicom Group, and Executive Director and Vice President of China Unicom Limited. Mr. Yang also served as Director and Vice President of China Unicom Corporation Limited, Chairman of Unicom Huasheng Telecommunications Technology Co. Ltd., Executive Vice President of the Company and Vice President of China Telecommunications Corporation. He is also the President of China Telecommunications Corporation. Mr. Yang has extensive experience in management and the telecommunications industry.

Jiping Zhang, Executive Director and EVP of China Telecom Corporation Limited. Mr. Zhang is a professor-level senior engineer. He graduated from the Beijing University of Posts and Telecommunications with a bachelor degree in radio telecommunications engineering in 1982, studied in a postgraduate program in applied computer engineering at Northeastern Industrial University from 1986 to 1988, and received a doctorate degree in business administration from the Hong Kong Polytechnic University in 2004. Mr. Zhang served as Deputy Director General of Directorate General of Telecommunications ("DGT") of the MPT, a Deputy Director General and Director of the Telecommunication Technology Centre of the Posts and Telecommunications Administration of Liaoning Province. He is also a Vice President of China Telecommunications Corporation and the Chairman of Supervisory Committee of China Tower Corporation Limited. Mr. Zhang has extensive experience in

management and the telecommunications industry.

3.3 Development of China Telecom Corporation Limited

In recent years, China Telecom Corporation Limited firmly grasp the great development trend in information and communication industry increasingly large change and integration, inheritance of the spirit of the internet "openness, cooperation, innovation". China Telecom Corporation Limited located in the "leader of smart pipe, provider of integrated platform, participants of content and applications", is committed to become a world-class integrated information service provider, to break the traditional thinking of imprisonment, deepen enterprise reform, continue to promote the strategic transformation through optimizing the way of customer service, expanding the field of value creation, inspiring the energy of enterprises, also through different operations continued to build competitive advantage and further liberate the productive forces, strengthen the power of enterprise development, to promote the company to the evolution of the Internet-based business model, and try to rebuild a new type of China Telecom Corporation Limited within five years. Now there are lists of products of TianYi-brand, such as “E-surfing Navigator”, “My E Home”, “E-surfing Flying Young”, “Best Tone”, “E-payment”. China Telecom Corporation Limited has a vast base of customer resources. By the end of 2013, the number of its broadband Internet access customers exceeded 113 million, mobile customers exceeded 186 million and fixed-line telephone customers exceeded 162 million.

Reform and innovation as the driving force for sustainable development, the consolidation of two basic services, improve the quality of light and 4G broadband services. In the smart home, payment, internet plus, the emerging field of Internet of Things and cloud computing and big data, and create more value belonging to China Telecom Corporation Limited. Enhanced network infrastructure, increase sales channels, enhance network operations capabilities, improve customer service capabilities, improve equipment operating data, and improve personnel. Deepening the Internet transformation, constantly upgrading products and services, improve operational efficiency. Open to increase cooperation in efforts to create a competitive advantage ecosystem, strategic cooperation with China Unicom,

promote market-oriented, mutual benefit and win-win situation. Comprehensively deepen reforms, advancing the draw small contractors, inverted triangle strengthens service support, promoting new business innovation and institutional mechanisms to stimulate the vitality of enterprises and endogenous motivation

In December 2013, China Telecom Corporation Limited received a 4G operating license which issued by the State Ministry of Industry, opening a new generation of 4G operations. In February 2014, over a hundred cities in China have achieve 4G business operations. China Telecom Corporation Limited will actively promote the 4G network construction, through the hybrid network to build a seamless high-speed mobile network, and coordinate the development of good cooperative on 4G, 3G and broadband services, to create the advantages of whole scene network, fast the steps of commercial 4G, for providing users with faster and better "TianYi" and 4G service experience. China Telecom Corporation Limited devoted itself to promising a better internet information life for whole citizens.

China Telecom Corporation Limited seize the strategic opportunity to create ecological value. Power network construction, lead the digital ecosystem to provide integrated intelligent services, deepen strategic transformation, promote business, network, operations, management reconstruction. Upgrade services to enhance the user experience. Stimulate the vitality of enterprises and employees, enhance efficiency and effectiveness

3.4 Global business of China Telecom Corporation Limited

For global market, China Telecom Corporation Limited has set branches in America, Europe, Asia-Pacific, Africa and Middle East region, which provide more convenient to global customers, such as broadband internet and leading-edge mobile network. As one of the leaders of integrated information service provider in Asia-Pacific region, China Telecom Corporation Limited responds positively of the policy of government "One Belt And One Road "strategies, to enhance global operations service capabilities, focus on Europe and Asia, the Greater Mekong, the three regions of Africa, also focusing the Internet, finance, logistics and four retail industry solutions, and actively serve multinational companies expand overseas, Europe, Asia and Africa to build information Silk Road. At the same time China Telecom

Corporation Limited play an active role in industry leader, try to achieve output of a large network operators overseas, construction and operation of the telecommunications network to provide management services to third world countries, driven by domestic communications device to "go out" policy to promote the common development of the communication industry chain.

As the center of overseas operation, China Telecom Corporation Limited has professional organization which focus on international business China Telecom Corporation International Ltd, headquartered in Hong Kong, currently have a total of 27 overseas branches, covering major countries and regions on five continents, now has been opened international roaming data more than 253. China Telecom Corporation International Ltd will take full advantage of local resources of China Telecom Corporation Limited, influence Asia, connect the world, to become a world-class integrated information service provider.

3.5 Competition advantage of China Telecom Corporation Limited

Since the 20th century the mid-1980s, China Telecom Corporation Limited has experienced nearly 20 years of rapid development, it has formed a scale. Although here it experienced a sub-camp of Posts and Telecommunications, a series of reforms separating the mobile paging peel, split reorganization, but in China's telecommunications market, China Telecom Corporation Limited still has a strong competitive advantage and development. Mainly in client resources, network infrastructure, talent pool, quality of service and so on.

3.5.1 Client resources

After bringing in competition mechanism of China's telecommunications market, China Telecom Corporation Limited and China Mobile, China Unicom, China Netcom and other operators start competing. Although China Telecom Corporation Limited north-south split, while retaining most of the existing fixed telephone network and data communication services at the same time, inherited most of the customer resources to maintain good customer relations in the market become absolute advantage of China Telecom Corporation Limited. 179 million fixed telephone subscribers, more than 15 million data communication users, laid a good foundation for China Telecom Corporation Limited business development and increasing revenue.

3.5.2 Improve network infrastructure

China Telecom Corporation Limited has more perfect network infrastructure than other competitors. During 20 years of reform and opening up, China Telecom Corporation Limited has built a nationwide, mainly in the cable, satellite and microwave supplemented by high-speed, large capacity, with a certain scale and advanced technology, basic transmission network, access network, switching network, data communications network and intelligent network. Meanwhile DWDM transmission network, broadband access network has built a data communications network and intelligent network continued expansion. China Telecom Corporation Limited's network advantage has become the core competence of enterprise development, along with the extension of the relevant professional foundation and strength. When we at home, we have fixed-line telephone, then we can use this account to apply internet service, and the branches in our city will provide us a favorable price, then if we use telephone of Chine Telecom, we can also enjoy the convenient of free calling between same net number.

3.5.3 Good talents

China Telecom Corporation Limited has training and reserving a large number of professional talents who are good at local market and familiar with high communications equipment capacity and management of telecommunications technology in the development progress. Meanwhile, China Telecom Corporation Limited has also accumulated a lot of wealth of operational management experience, network management, good operating skills and more comprehensive service system.

3.5.4 Innovation model

In 2012, China Telecom Corporation Limited launched "TianYi" after purchasing China Union CDMA service, which a service while combines CDMAEV-DO, WiFi broadband technology, also bound fixed network, is a powerful weapon of China Telecom Corporation Limited to participate in 3G competition. It's not just the phone number or Internet account, it is also E-Mail, broadband can roam. China Telecom Corporation Limited fixed network by integrating WiFi and advantages in the 3G competition ahead of China Mobile, and advance broadband and FMC (fixed mobile convergence) which has become the weakness of China mobile.

3.5.5 Early movement on 3G technology

China Telecom Corporation Limited gain some advantage from early manage 3G deployment than China Mobile, through domestic telecommunication industry regroup, China Telecom Corporation Limited bought China Unicom's CDMA network, became the mobile operators. From the network download speeds, China Telecom Corporation Limited's CDMA network by upgrading to EVDO theoretical peak download speeds of 3.1Mbps, and TD-SCDMA, China Mobile network theory peak download speeds of 2.8Mbps, it is a little difference between these two competitors. But look deployment of the network, China Mobile is obvious fall behind China Telecom Corporation Limited. China Telecom Corporation

Limited's CDMA network upgrade is a smooth evolution, only need to replace part of the channel board and upgrading software to complete. It is just a small investment with quick construction, to be completed quickly nationwide network deployment. But China Mobile's TD network is not smooth evolution, they need involving relocation and a long construction period. When China Telecom Corporation Limited completed nationwide 3G network coverage, China Mobile only 38 cities in the construction of the 3G network. We can see gap of network deployment is very large. As an experienced operator on management, China Telecom Corporation Limited can take advantage of the upper hand on their own 3G deployment than China Mobile and other competitors.

3.5.6 High quality of service

China Telecom Group set up a customer service center for solving clients from different cities start the net demand. China Telecom Corporation Limited has also established one click acceptance and one stop-shop service system to maximize convenience of customers, followed on China Telecom Corporation Limited launched the asking system of job responsibility to solve the relationships between enterprises and clients in the progress of providing service and mutual Selection Committee issues. In addition, China Telecom Corporation Limited has also set up a hot line (10000), complaints hot line (180) and other lines. Aim to provide interactive services between the center and users communication services. When we need to solve some problem of internet, we just need to call the hot line (10000), the manual service will according the wrong code to fix the problem, if can't fix at time, they will also send service into home. It is more easy for users when they have a complex problem.

3.5.7 Cloud computing and Big data

As the largest cloud data center service provider, China Telecom Corporation Limited relies on nationwide coverage, access and communication networks in the world huge Internet user base in the northeast, north, southeast, south, southwest, northwest and central has

established eight regional cloud resource pools, Guizhou, Inner Mongolia are established Asia's largest cloud data center, and on-demand distribution according to actual needs of customers, to achieve the domestic "8 + 2 + X" cloud the overall layout of the data center, customers can fully meet the nearest Select the cloud resources bearing demand, highlights China Telecom Corporation Limited cloud service high efficiency, low-latency differential advantage. Chairman Xi also affirm fully of big data cloud computing development. China Telecom Corporation Limited's cloud computing subsidiary, is the largest cloud computing service provider, to promote China's cloud computing era mission process, product development, resources, operations, marketing, for one, is committed to the government, enterprises and the public providing customers with carrier-class, highly reliable cloud-based resources, cloud application platform solutions and cloud services, is the trusted choice for cloud computing service providers.

4 Evaluation of Financial Situation of the Company

Through the description of financial analysis methodology, we will practice these methods in this chapter. All data come from the China Telecom Corporation Limited's financial reports and accounting reports 2010-2014. Based on the common-size analysis, financial ratios analysis, analysis of pyramidal decomposition, we can clearly know the exactly financial situation of the China Telecom Corporation Limited (2010-2014)

4.1 Common-size analysis

Common-size analysis includes expressing financial data relatively with each financial statement item or making the comparison with precious or next time periods. It is divided into vertical analysis and horizontal analysis.

4.1.1 Vertical analysis

Based on equation 2.4, here we calculate the statement items according to the balance sheet. It shows in table 4.1.

Table 4.1 Vertical analysis of assets part

	2010	2011	2012	2013	2014
Total non-current assets	**88.79%**	**88.68%**	**90.77%**	**93.01%**	**92.42%**
Total current assets	**11.21%**	**11.32%**	**9.23%**	**6.99%**	**7.58%**
Total assets	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: Own calculation.

Table 4.2 Vertical analysis of non-current assets

	2010	2011	2012	2013	2014
Non-current assets					
Property, plant and equipment, net	68.47%	65.25%	69.94%	70.28%	68.07%
Construction in progress	3.56%	4.44%	6.04%	8.27%	9.64%
Lease prepayments	1.34%	6.42%	4.84%	4.72%	4.48%
Goodwill	7.47%	7.31%	5.62%	5.64%	5.48%
Intangible assets	2.46%	1.84%	1.69%	1.45%	1.55%
Investments in subsidiaries	1.32%	1.51%	1.14%	1.14%	1.11%
Interests in associates	0.19%	0.15%	0.11%	0.11%	0.65%
Investments	0.21%	0.16%	0.12%	0.19%	0.18%
Deferred tax assets	2.67%	0.72%	0.51%	0.50%	0.54%
Other assets	1.09%	0.87%	0.77%	0.72%	0.71%
Total non-current assets	**88.79%**	**88.68%**	**90.77%**	**93.01%**	**92.42%**

Source: Own calculation.

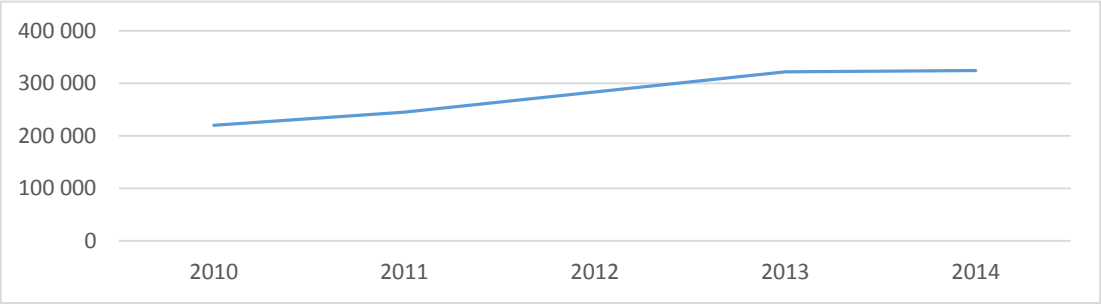
From the table 4.1, we can see the largest part consist of assets is non-current assets, we can also call it as fixed assets. And from table 4.2, we can see in the non-current assets, the property, plant and equipment accounted for the largest proportion of non-current assets, and rise from 2010 to 2013, although a little fall down in 2014, we can see how important the items it is. China Telecom Corporation Limited as a technological company, they must have advanced equipment to prove the whole operation, and also the rent of the plant because of the expansion of the career in whole China to world. And the proportion of intangible assets go down than year by year, this is a problem of the company, that means China Telecom Corporation Limited need to strengthen the ability to create patent and so on for more intangible assets. Also we can see the second proportion of the non-current assets is construction on progress, we have mention that China Telecom Corporation Limited is a company which continued to innovation, although they just have 3.56% of the assets are construction on progress in 2010, now they are growing to nearly 10% in 2014. Table 4.3 shows the result of current assets through vertical analysis.

Table 4.3 Vertical analysis of current assets

Current assets	**2010**	**2011**	**2012**	**2013**	**2014**
Inventories	0.50%	0.58%	0.60%	0.60%	0.37%
Income tax recoverable	0.47%	0.58%	0.28%	0.06%	0.25%
Accounts receivable, net	3.98%	4.19%	3.35%	3.65%	3.73%
Prepayments and other current assets	1.18%	1.02%	0.97%	1.12%	1.46%
Time deposits with original maturity over three months	0.09%	0.09%	0.11%	0.01%	0.01%
Cash and cash equivalents	4.99%	4.87%	3.93%	1.55%	1.77%
Total current assets	**11.21%**	**11.32%**	**9.23%**	**6.99%**	**7.58%**

Source: Own calculation.

Graph 4.1 Change of operating revenues from 2010 to 2014



Sources: Own calculation

In the table 4.3, we can see the largest proportion of it is Account receivable. Compared with 2010, account receivable accounted a larger proportion of the current assets, also we can see the operating revenue in 2011 go up than 2010 (shows in graph 4.1), that means, China Telecom Corporation Limited has relax the credit policy for expanding sales in 2010, and the situation is not so bad, but at 2012, the proportion of account receivable go down, and operating revenues still show the trend of going up, so it can show the change of business in account receivable has limited impact on the growth of operating revenues. But we can still know the credit sales is a main trading way of China Telecom Corporation Limited.

Next, we will focus on the liability and equity. table 4.4 shows the vertical analysis of liabilities and equity.

Table 4.4 Vertical analysis of liabilities and equity

	2010	2011	2012	2013	2014
Short-term debt	5.17%	2.25%	1.22%	5.21%	8.05%
Current portion of long-term debt	2.59%	2.88%	1.92%	3.79%	0.02%
Accounts payable	9.41%	9.91%	12.05%	14.76%	15.66%
Accrued expenses and other payables	12.81%	14.03%	19.31%	12.36%	12.19%
Income tax payables	0.05%	0.09%	0.05%	0.04%	0.03%
Current portion of finance lease obligations	0.00%	0.00%	0.00%	0.00%	0.00%
Current portion of deferred revenues	0.66%	0.51%	0.31%	0.23%	0.19%
Total current liabilities	**30.68%**	**29.66%**	**34.87%**	**36.39%**	**36.14%**
Net current liabilities	-19.47%	-18.34%	-25.64%	-29.40%	-28.57%
Total assets less current liabilities	69.32%	70.34%	65.13%	63.61%	63.86%
Non-current liabilities	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term debt	10.64%	7.62%	15.56%	11.82%	11.55%
Finance lease obligations	0.00%	0.00%	0.00%	0.00%	0.00%
Deferred revenues	0.89%	0.66%	0.34%	0.23%	0.15%
Deferred tax liabilities	0.57%	0.25%	0.12%	0.10%	0.18%
Total non-current liabilities	12.09%	8.53%	16.01%	12.15%	11.88%
Total liabilities	**42.77%**	**38.18%**	**50.88%**	**48.54%**	**48.02%**
Share capital	20.23%	19.79%	15.23%	15.28%	14.86%
Reserves	36.99%	42.02%	33.89%	36.18%	37.12%
Total equity	**57.23%**	**61.82%**	**49.12%**	**51.46%**	**51.98%**
Total liabilities and equity	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: Own calculation.

From table 4.4, total liabilities are consisting of two parts, current liabilities have large proportion of liabilities and non-current liabilities are less than it. Account payable accounted a big proportion of liabilities. It is a flexible way of liabilities, through account payable, company can finance from effect of short-term debt. But more too much account payable easy to make crisis of credibility for a company. It needs more attention by the operator of China Telecom Corporation Limited. Another is short-term debt. We can see short-term debt is still an important way to finance in the company, and China Telecom Corporation Limited use 8.05% proportion of it in 2014 for daily production required and making up for the lack of liquidity, the creditor usually are banks and other financial institutions and involved in the

various loan within one year. But too much short-term liabilities are not good for the company, after all, the company short-term debt to face the pressure, if not handled properly they face the risk of bankruptcy and debt repayment, it is easy to make company to adopt short-term behavior, and it is not conducive to long-term development.

4.1.2 Horizontal analysis

Next, we will analyze the balance sheet by using horizontal method. Based on equation 2.5. Here we use the year of 2010 as benchmark, and compare each period with base year then get the table 4.5.

Table 4.5 Horizontal analysis of assets part

	2010	**2011**	**2012**	**2013**	**2014**
Non-current assets					
Property, plant and equipment, net	100%	-2.56%	35.75%	35.92%	35.40%
Construction in progress	100%	27.60%	125.23%	207.56%	268.62%
Lease prepayments	100%	388.78%	379.10%	365.10%	353.99%
Goodwill	100%	0.00%	0.00%	0.00%	0.00%
Intangible assets	100%	-23.53%	-9.03%	-22.23%	-14.17%
Investments in subsidiaries	100%	17.19%	15.29%	14.09%	14.95%
Interests in associates	100%	-20.33%	-27.41%	-27.41%	357.40%
Investments	100%	-24.15%	-27.92%	20.73%	14.37%
Deferred tax assets	100%	-72.42%	-74.57%	-75.21%	-72.44%
Other assets	100%	-18.80%	-6.62%	-12.98%	-11.13%
Total non-current assets	**100%**	**2.11%**	**35.85%**	**38.71%**	**41.76%**
Current assets					
Inventories	100%	18.20%	59.15%	60.15%	1.10%
Income tax recoverable	100%	26.46%	-20.45%	-83.71%	-28.70%
Accounts receivable, net	100%	7.48%	11.72%	21.37%	27.55%
Prepayments and other current assets	100%	-11.61%	8.79%	26.08%	68.14%
Time deposits with original maturity over three months	100%	0.54%	55.50%	-91.96%	-86.06%
Cash and cash equivalents	100%	-0.17%	4.63%	-58.82%	-51.77%
Total current assets	**100%**	**3.28%**	**9.39%**	**-17.41%**	**-7.94%**
Total assets	**100%**	**2.24%**	**32.88%**	**32.42%**	**36.19%**

Source: Own calculation.

We can find out the change based on 2010. During 5 years, total assets always show the increase trend. Although just 2.24% growth in 2011, after China Telecom Corporation Limited released the main brand “TianYi”, it made the assets of China Telecom Corporation Limited increased by 32.88%. Almost the 5 times of 2011. Through the table 4.6, there still problem need to focus, the intangible assets show the negative increased. It will become a lack of company to have competition ability, same as we have mentioned in last part, means that however the analysis methods are, the problem will be found out. Also we can find the investments in subsidiaries is keep almost stable increased during 5 years. And Cash and cash equivalents item is shows the decreased trend, which means the short term pay out ability of China Telecom Corporation Limited need to strengthen.

Table 4.6 Horizontal analysis of liabilities and equity

	2010	**2011**	**2012**	**2013**	**2014**
Short-term debt	100%	-55.56%	-68.68%	33.39%	112.02%
Current portion of long-term debt	100%	13.66%	-1.35%	93.89%	-99.21%
Accounts payable	100%	7.72%	70.24%	107.87%	126.72%
Accrued expenses and other payables	100%	11.98%	100.40%	27.81%	29.67%
Income tax payables	100%	78.28%	46.97%	1.52%	-4.04%
Current portion of finance lease obligations	100%	0.00%	0.00%	0.00%	0.00%
Current portion of deferred revenues	100%	-20.95%	-37.58%	-54.59%	-60.11%
Total current liabilities	**100%**	**-1.17%**	**51.02%**	**57.05%**	**60.43%**
Net current liabilities	100%	-3.73%	74.99%	99.92%	99.79%
Total assets less current liabilities	100%	3.75%	24.85%	21.52%	25.46%
Long-term debt	100%	-26.79%	94.34%	47.16%	47.86%
Finance lease obligations	100%	0.00%	0.00%	0.00%	0.00%
Deferred revenues	100%	-23.78%	-49.66%	-65.46%	-77.57%
Deferred tax liabilities	100%	-55.70%	-72.28%	-77.67%	-55.97%
Total non-current liabilities	100%	-27.92%	75.96%	33.04%	33.78%
Total liabilities	**100%**	**-8.73%**	**58.07%**	**50.26%**	**52.90%**
Share capital	100%	0.00%	0.00%	0.00%	0.00%
Reserves	100%	16.16%	21.74%	29.52%	36.66%
Total equity	**100%**	**10.44%**	**14.05%**	**19.08%**	**23.70%**
Total liabilities and equity	**100%**	**2.24%**	**32.88%**	**32.42%**	**36.19%**

Source: Own calculation.

From table 4,6, we can see the total liabilities and equity are increasing every year. And short-term debt is the most increased item. We can see from 2011 to 2012, it shows the decrease trend, but after China Telecom Corporation Limited started to push out the new product "TianYi" and the main funds came from short-term debt, this is the main way China Telecom Corporation Limited collects funds. Besides, long-term debt no longer as the main sources of receive funds for the company. And we can see the share capital is always fixed, because of the company has the stable share capital.

4.2 Financial ratio analysis

In this chapter, we will use kinds of ratio to evaluate the relative items. And analyze the situation of China Telecom Corporation Limited.

4.2.1 Liquidity ratios

Liquidity ratios consist of three parts, which used to measure company's ability to meets its short-term obligations. We can get result of current ratio based on equation 2.6, quick ratio based on equation 2.7 and cash ratio based on equation 2.8. All data are from balance sheet (2010-2014), here are the results of liquidity ratios over 5 years

Table 4.7 Result of liquidity ratio

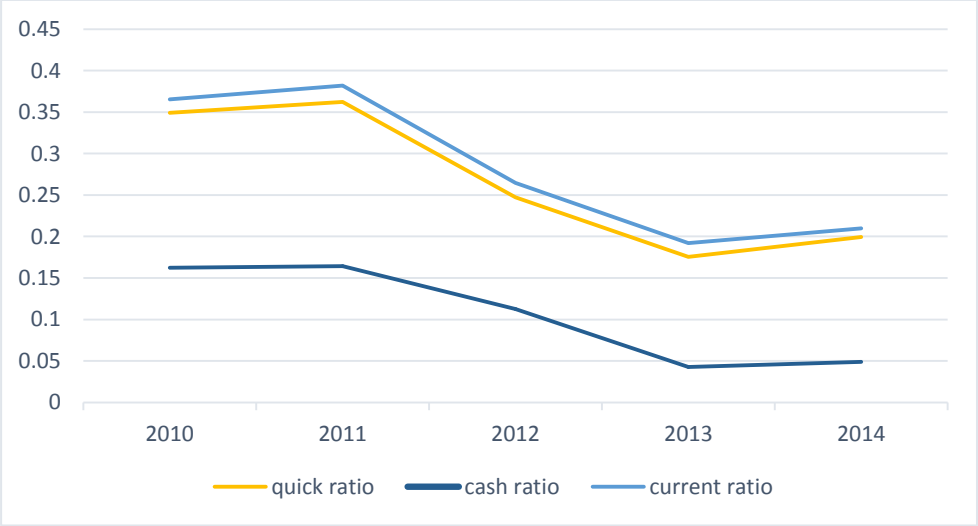
	2010	2011	2012	2013	2014
Current ratio	0.3653	0.3818	0.2646	0.1921	0.2096
Quick ratio	0.3490	0.3623	0.2474	0.1755	0.1994
Cash ratio	0.1625	0.1641	0.1126	0.0426	0.0488

Source: Own calculation.

We can see from table 4.7, the current ratio decreases year by year, compare with 2010, it decreased by 42.6%, it shows China Telecom Corporation Limited has less ability to pay short-term obligations. We can also see the quick ratio show the decrease trend, but compare with the current ratio, quick ratio is more precise, because of the items calculated into it are not included inventories. Next is the highest liquidity items cash ratio. Through cash ratio, it

still shows the decrease trend. Combine three ratios, we can know China Telecom Corporation Limited's ability to pay short-term obligation is weak. It needs to improve. The change of each ratios shows in graph 4.2.

Graph 4.2 Comparison of liquidity ratio



Source: Own drawn.

We can see the trend of these 3 basic ratios are same, it decreases from 2010 and increase after 2013. In 2011, it shows the highest period of China Telecom Corporation Limited, China Telecom Corporation Limited propose to continue to strengthen the development of strategic transformation, defined as "leader of smart pipe, provider of integrated platform, participants of content and applications" strive to achieve changes from telephone traffic management to internet flow traffic management. In 2012 China Telecom Corporation Limited Corporation Board of Directors formally established, it leads the less ability to pay the short-term obligation. But then China Telecom Corporation Limited received a 4G operating license which issued by the State Ministry of Industry in 2013. It helps China Telecom Corporation Limited step into a new level, so the trend of liquidity ratio is going up.

4.2.2 Leverage ratios

With leverage ratios, we can know the company's ability to meet long-term obligations. There are two basic types of ratios. Based on equation 2.9 here shows result of debt ratio in table 4.8.

Table 4.8 Result of debt ratio

	2010	2011	2012	2013	2014
Debt ratio	0.4277	0.3818	0.5088	0.4854	0.4802

Source: Own calculation.

The debt ratio means how many assets be financed from debt, also can measure the benefit of creditors during liquidation, we can see the debt ratio is fluctuation, and go down in 2011 but go up in 2012, and keep a slightly decrease trend during 2 years. That means China Telecom Corporation Limited uses less debt to finance into assets.

Similar to debt ratio, debt-to-equity ratio can measure what proportion of the company's equity is financed by debt and also reflects the contrast between the capital and shareholders provided by creditors to provide funds. Based on equation 2.10, table 4.9 shows the result of debt-to-equity ratio.

Table 4.9 Result of debt-to-equity ratio

	2010	2011	2012	2013	2014
Debt-to-equity ratio	0.7475	0.6177	1.0360	0.9432	0.9239

Source: Own calculation.

We can see the all debt-to-equity ratio is less than one, so China Telecom Corporation Limited uses more equity than debt, and indicates better long-term financial situation of company, the right of creditors are protected.

In the table 4.10, interest coverage is calculated by operating profit and interest paid based on equation 2.11, it tells the extent to which the company's operating profit is able to

meet current interest payment.

Table 4.10 Interest coverage

	2010	2011	2012	2013	2014
Interest coverage	6.1328	7.8239	9.6400	4.9288	5.0076

Source: Own calculation.

During 2010-2012, interest coverage is increased, and in 2012, there are 10% of company's profit is consumed by interest paid. It shows the high ability to pay interest. But after 2012, it is just half of interest coverage in 2013. Compared with previous years, it needs to strengthen the ability.

4.2.3 Profitability ratios

Profitability ratios are important ratios for analyzing the company, when we get the result from it, we can use to do DuPont analysis. Profitability ratios are included four basic ratios. As usual, the higher the profitability ratios, the better competitive position of the company. Based on equation 2.20, we can get the result of operating profit margin. In the table 4.11 shows the results of operating profit margin.

Table 4.11 Operating profit margin

	2010	2011	2012	2013	2014
Operating profit margin	0.1067	0.0985	0.0749	0.0854	0.0879

Source: Own calculation.

We can see from table 4.11, the result of operating profit margin first decreased before 2012, then increase. In 2012, it shows the company's situation is bad, but fortunately it is getting better. If we say operating profit margin can measure operating profit per one unit of revenues, then the net profit margin is measuring net profit per one unit of revenues. Table 4.12 shows the change over 5 years. The result of net profit margin is based on equation 2.21.

Table 4.12 Net profit margin

	2010	2011	2012	2013	2014
Net profit margin	0.0703	0.0677	0.0532	0.0549	0.0547

Source: Own calculation.

We can see all the ratios are positive, that means the net profits are also positive, the operating revenues are always more than operating expense of China Telecom Corporation Limited. Next are not only very important ratios but also basic ratios.

Return on assets is most widely used indicator of profitability for analysis the company's situation, the higher the return on assets is, means the better on using of company's assets, return on assets also shows that company have achieved good results in increased income and savings funds and so on. As bank doing the evaluation of the company, they mostly focus on return on assets ratio. Limitations of return on assets is that it does not reflect the company' s funding costs. Table 4.13 show the return on assets of China Telecom Corporation Limited based on equation 2.22.

Table 4.13 Return on assets

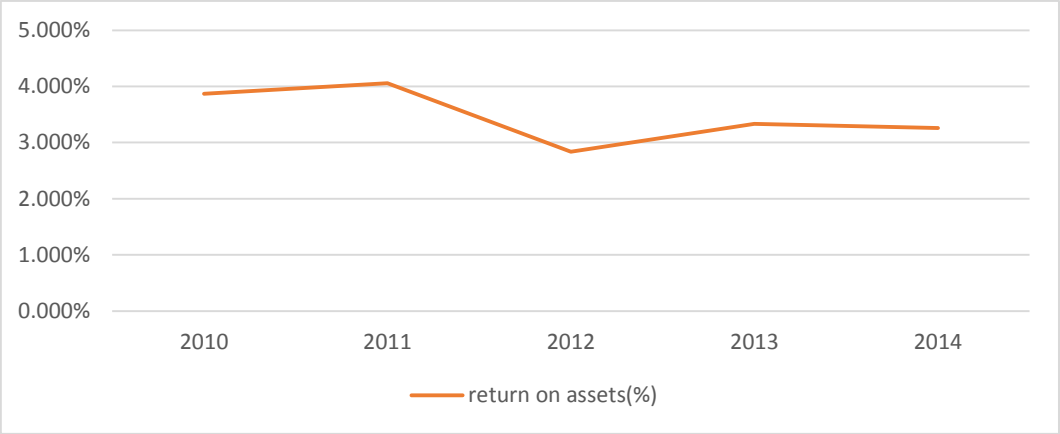
	2010	2011	2012	2013	2014
Return on assets (%)	3.867%	4.059%	2.834%	3.336%	3.260%

Source: Own calculation.

In the table, we can see the return on assets of China Telecom Corporation Limited is very fluctuation, from 2010 to 2011, ROA has increased, but in 2012 the result of return on assets is just half of result in 2011, it means during that year, China Telecom Corporation Limited existed bad situation. After 2012, the situation is getting better, but the range of increasing is not very large.

For more directly look, then make a graph. From 2010 to 2011. It is shown in the following graph.

Graph 4.3 Return on assets



Source: Own drawn.

We can see slightly increase trend of return on assets from graph 4.3, means the owner will get more profit from company. Then from 2011 to 2012, because of the start of strategic reform, the return on assets falls down. May be it is the owners become unsatisfied about their profit, they started to create new brand, thanks to the "TianYi", in 2013, return on assets show the good trend, this make company become more competitive than previous year.

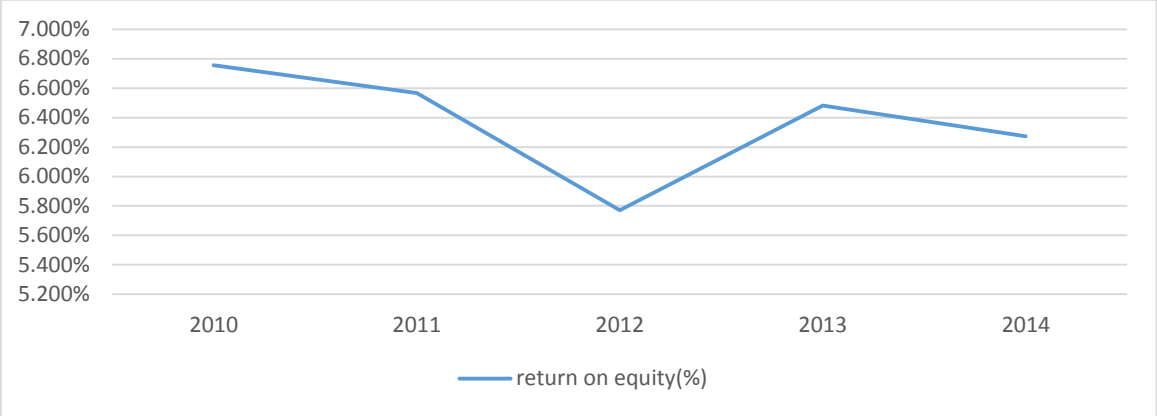
After we mentioned the return on assets, there should have the result of return on equity to follow by. Return on equity reflects the level of shareholders' equity income, we use it to figure out the efficiency of a company on using its own capital and the ability of its own capital net gain. The higher the ratio, the higher income investment of the company. In general, the increase in debt will lead to a rise in ROE.

Table 4.14 Return on equity

	2010	2011	2012	2013	2014
Return on equity (%)	6.757%	6.566%	5.771%	6.482%	6.273%

In table 4.14 we can see the return on equity of China Telecom Corporation Limited over five years based on equation 2.23. We can general it into how many profit from capital are provided by owners of company, we also use graph to see more clearly.

Graph 4.4 Return on equity



There exists big fluctuation from 2010 to 2014, in 2012, the return on equity is lower than before, and means China Telecom Corporation Limited is not so efficiency in 2012 of using their capital. We can compare the graph 4.3 and graph 4.4 the trend of these two ratios are almost same, it is just the return on equity is more fluctuation. Although it is revived from 2012, but now shows a slightly decrease on both two ratios, as a company which need more investment on infrastructure to develop the profit, ROE usually can't be a very precise index to reflect the profitability of company, but however, China Telecom Corporation Limited must to do some strategic change, for saving the situation.

4.2.4 Activity ratios

In Chapter 2 we have mentioned that in production, there exists an operating cycle, and more times this cycle works, more profit the company has. Although China Telecom Corporation Limited is not a tangible production industry, but they also produce the internet

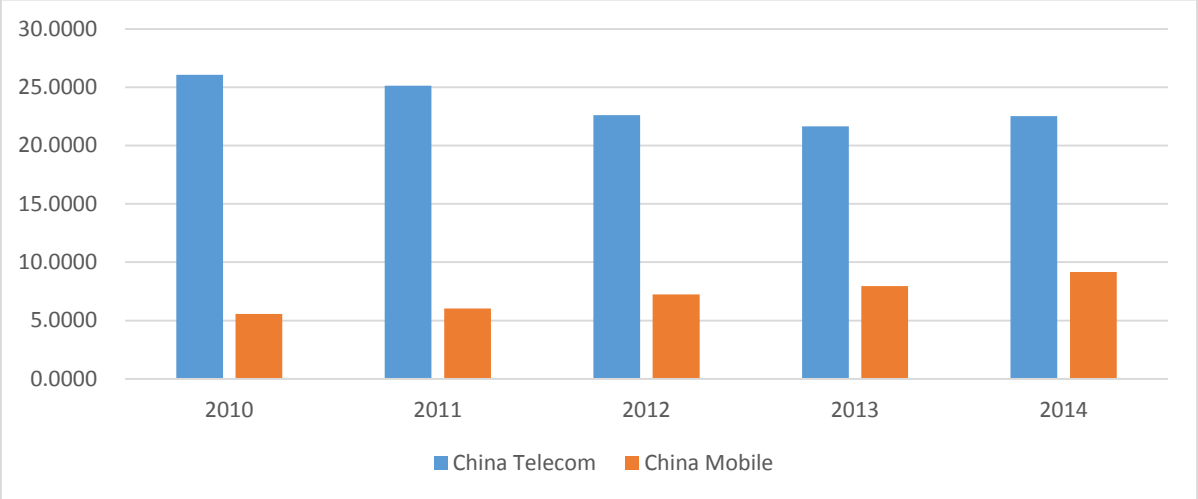
service and so on. The activity ratios are also an important method to analysis if the company use their assets optimal. Because of the ratios are all about the times, so if we just look the activity ratios change of one company, we can't analysis if this company is efficiency on the production, so here we will compare the data with the competitor of China Telecom Corporation Limited, China Mobile[1].The data all come from the financial report of China Mobile. Here is a list of ratios need to claim. Based on equation 2.12, table 4.15 shows the result of average collection period.

Table 4.15 Result of average collection period

	2010	2011	2012	2013	2014
China Telecom	26.0719	25.1429	22.6151	21.6347	22.5381
China Mobile	5.5760	6.0229	7.2528	7.9446	9.1705

Source: Own calculation.

Graph 4.5: Comparison of average collection period between China Telecom Corporation Limited and China Mobile



[1] China Mobile's official website. Available on http://www.chinamobileltd.com/sc/global/home.php

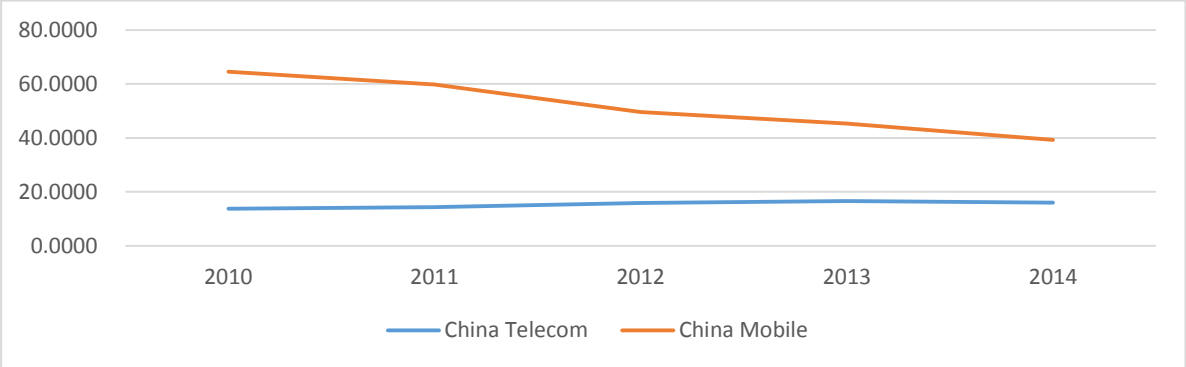
We can see from the table 4.15 and graph 4.5, between these two companies, the average collection period of China Mobile is lower than China Telecom Corporation Limited. Because of the average collection period is the number of date, and lower the ratio is, faster to receive money back.

For the conversion of accounts receivable into cash, China Telecom Corporation Limited need to improve themselves.

Table 4.16 Result of accounts receivable turnover

	2010	2011	2012	2013	2014
China Telecom	13.8080	14.3182	15.9186	16.6400	15.9729
China Mobile	64.5627	59.7715	49.6361	45.3136	39.2563

Graph 4.6 Comparison of accounts receivable turnover between China Telecom Corporation Limited and China Mobile



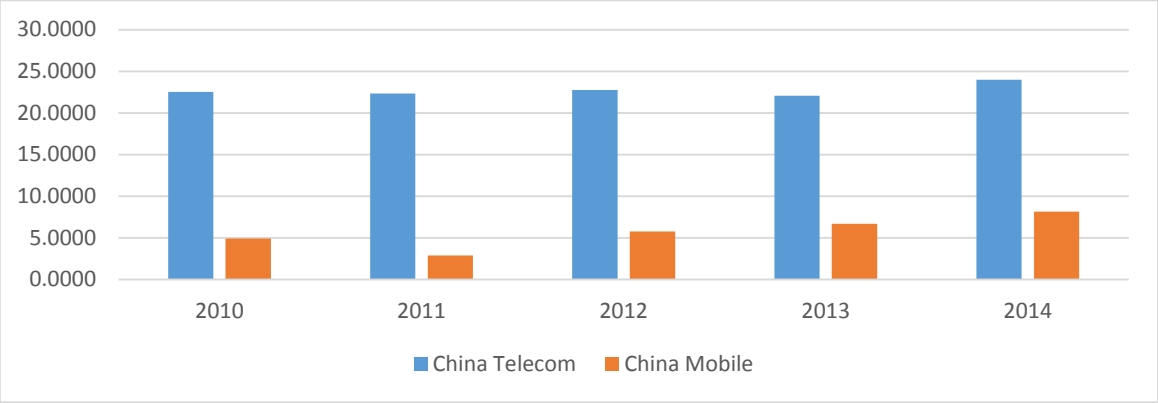
In the table 4.16 and graph 4.6, we calculate the accounts receivable turnover of China Telecom Corporation Limited and China Mobile based on equation 2.13, it uses to know how many times the accounts receivable is rolled over during a year. But it is not a number of date, it is the times of the operating cycle are working. So we prefer more times in the operating cycle, and China Mobile is higher than China Telecom Corporation Limited. The profit of China Telecom Corporation Limited will less than China Mobile. But we can see the trend of these two ratios, China Telecom Corporation Limited has shown the increase trend but China Mobile has shown the decrease trend. We can look forward to the improvement of China Telecom Corporation Limited.

Base on equation 2.14, we calculate the inventory turnover of China Telecom Corporation Limited and China Mobile.

Table 4.17 Result of Inventory turnover

	2010	2011	2012	2013	2014
China Telecom	22.5354	22.3378	22.7507	22.0633	24.0073
China Mobile	4.9424	2.9104	5.7607	6.7049	8.1560

Graph 4.7 Comparison of Inventory turnover between China Telecom Corporation Limited and China Mobile



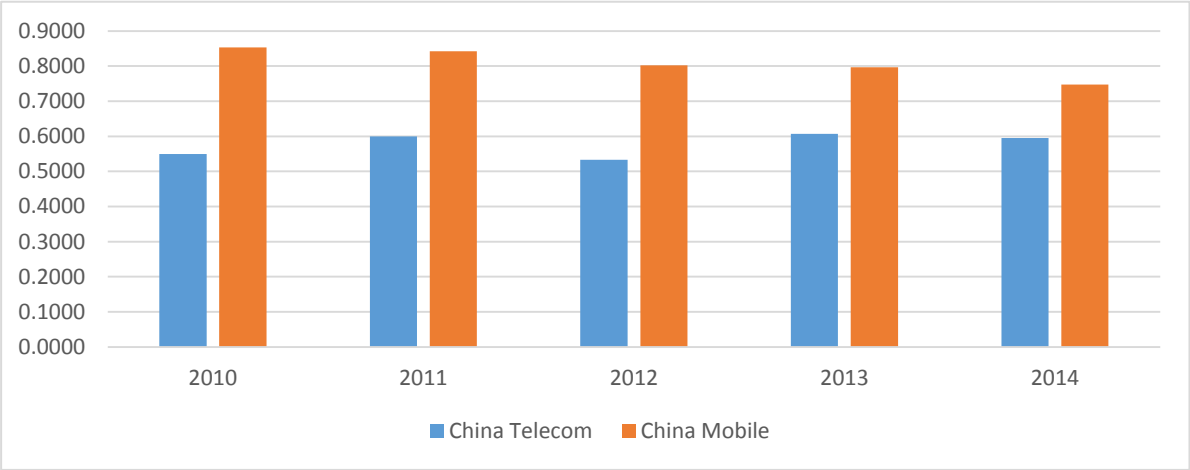
As we discuss the inventory turnover, we want the higher turnover for more times put inventory into production, let us look at the graph 4.7, for the China Telecom Corporation Limited, it is advantage to get more profit with higher inventory turnover. And keep the increase trend in the future is the expectation.

Table 4.18 Result of Total assets turnover

	2010	2011	2012	2013	2014
China Telecom	0.5497	0.5992	0.5328	0.6072	0.5955
China Mobile	0.8534	0.8422	0.8022	0.7970	0.7470

Source: Own calculation.

Graph 4.8 Comparison of Total assets turnover between China Telecom Corporation Limited and China Mobile



The last part of activity ratios is total assets turnover, this ratio is an efficiency ratio which tells how successfully the company is using its assets to generate revenue. So the higher total assets turnover is, the ability of using assets to generate revenue is strong. Based on the theory and graph 4.8, we can see China Telecom Corporation Limited is lower than China Mobile but with a slightly difference. Although the product value of China Telecom Corporation Limited is lower than China Mobile, the difference is getting less. Through the analysis of activity ratios, China Telecom Corporation Limited's situation of turnover has negative impact on future company evolution, it need more strategic to strengthen the ability to generate the operating cycle, and keep develop the advantage of inventory turnover.

4.2.5 Market-based ratios

Just as we mentioned in Chapter 2, Market-based ratios need based on financial and market data that means depend on market supply and demand. And the market-based ratios only for company whose share can be sold or bought on financial market. In September 2002, China Telecom Corporation Limited initiated the establishment of China Telecom Corporation Limited Corporation Limited, the same year in November, China Telecom Corporation Limited's shares are first listed trading on the Hong Kong Stock Exchange and the New York Stock Exchange. Here we calculate earnings per share based on equation 2.16 and

price/earnings (P/E) ratio based on equation 2.17.

Table 4.19 Earnings per share

	2010	2011	2012	2013	2014
Earnings per share	0.19	0.2	0.18	0.22	0.22

Table 4.20 P/E ratio

	2010	2011	2012	2013	2014
P/E ratio	16.6	14.5	15.7	20.6	14.8

Source: Own calculation.

A company's price/earnings (P/E) ratio can be calculated by dividing the current market price of a share by the earnings per share (EPS). A high P/E ratio means the company is highly-rated by the stock market, suggesting that investors think its prospects are good.

4.3 Pyramidal decomposition

In this chapter, we will use the pyramidal decomposition methods, which we have introduced in chapter 2. By decomposing the basic ratio into different component ratios, then we can find out which factor has the most effect with the basic ratio on its value or evolution. Here we will make decomposition of return on equity ratio by three component ratios. As we mentioned before with net profit margin, assets turnover and financial leverage. Based on the equation 2.24, we will decompose the ROE into three components. Here are a table to show the progress.

Table 4.21 Basic data for pyramidal decomposition

	2010	2011	2012	2013	2014
Total assets	399,967	408,932	531,490	529,635	544,707
Total equity	228,883	252,785	261,049	272,559	283,122
Operating revenues	219,864	245,041	283,176	321,584	324,394
Operating profit	23,452	24,129	21,208	27,468	28,508
Profit for the year	15,465	16,598	15,064	17,666	17,759
net profit margin	0.0703	0.0677	0.0532	0.0549	0.0547
assets turnover	0.5497	0.5992	0.5328	0.6072	0.5955

financial leverage	1.7475	1.6177	2.036	1.9432	1.9239
return on equity (%)	6.757%	6.566%	5.771%	6.482%	6.273%

Source: Own calculation.

We can see the return on equity calculated by three component ratios, net profit margin is the ratio of net profits to revenues for a company, typically expressed as a percentage that shows how much of each price earned by the company is translated into profits. Generally speaking, if the net profit margin higher, indicating company profitability of selling is stronger, but it does not tell the absolute sales margin higher is better, we must also look at the changes in the company's sales and net profit growth at the same time. We can see the net profit margin of China Telecom Corporation Limited has decreased during five years, but the net income has increased. This may be the net profit growth did not adapt to the sales, so the ratios are decrease. Then we can see the assets turnover, this ratio we have mentioned in chapter 4.2. It is an efficiency ratio which tells how successfully the company is using its assets to generate revenue. The higher total assets turnover is, the ability of using assets to generate revenue is strong. We can see the assets turnover of China Telecom Corporation Limited is a fluctuation trend, that means in 2013, China Telecom Corporation Limited has more efficiency than other years, thanks to the strategic reform and new brand “Tian Yi” to expand their markets.

The main methods of pyramidal decomposition are method of gradual changes, logarithmic decomposition method and functional decomposition method. In this chapter, we will analyze the impact of the changes in component ratios on the basic ratio by applying these three methods, and make an order of the component ratios according to the impact on the basic ratio for both methods and compare the results.

Here we assume Return on equity is the basic ratio, and We will decompose Return on equity into three component ratios: net profit margin ($EAT/rev.$), assets turnover ($Rev./assets$) and financial leverage ($assets/equity$).

Table 4.22 Result of component ratios

	2010	**2011**	**2012**	**2013**	**2014**
net profit margin	0.0703	0.0677	0.0532	0.0549	0.0547
assets turnover	0.5497	0.5992	0.5328	0.6072	0.5955
financial leverage	1.7475	1.6177	2.036	1.9432	1.9239
return on equity (%)	6.757%	6.566%	5.771%	6.482%	6.273%

4.3.1 Method of gradual change

Here we have known the ROE of each year, we need to calculate the absolutely change and index of the change. We will divide into four groups. Next table shows the absolutely change and index of ROE of each group based on equation 2.28 and 2.33.

Table 4.23 Absolutely change and index change of ROE

	2010-2011	2011-2012	2012-2013	2013-2014
ΔROE^{abs}	-0.0019	-0.008	0.0071	-0.0021
I_{ROE}	0.9719	0.8782	1.1231	0.9676

Source: Own calculation.

Then we well do decomposing. And use method of gradual changes.

Image 4.1 Decomposition of return on equity

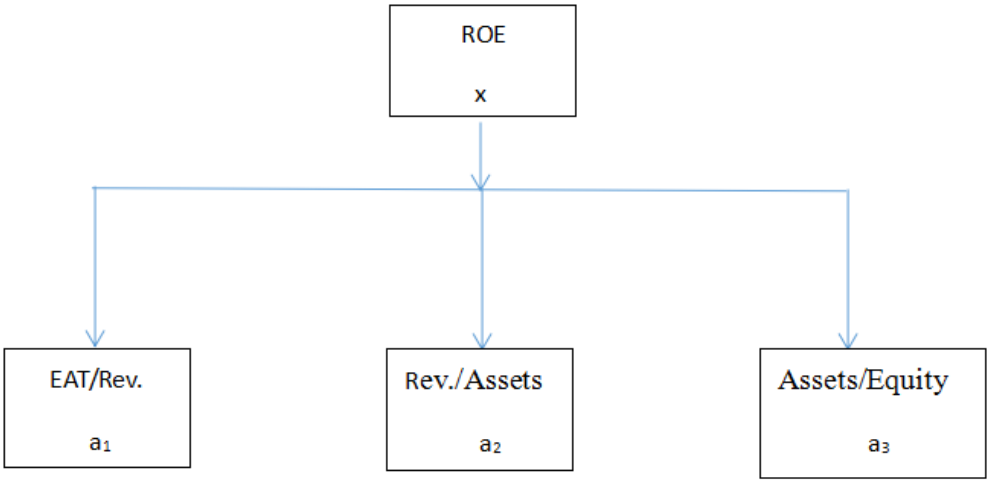


Table 4.24 Result of 2010-2011 by gradual change method

	2010	2011	Δa	ΔX_{ai}	order
a_1=EAT/Rev	0.0703	0.0677	-0.0026	-0.0025	2
a_2=Rev/Assets	0.5497	0.5992	0.0495	0.0059	1
a_3=Assets/Equity	1.7475	1.6177	-0.1298	-0.0053	3
Sum	x	x	x	-0.0019	

Source: Own calculation.

We can see from table 4.24, the absolute change in return on equity caused by the change in net profit margin and financial leverage is negative, that means, in 2011, the financial leverage did not work and made a negative effect to company. And the most impact component ratio is assets turnover. Here the sum of absolute change in the ROE caused by the change in each component ratio is equal to the total absolute change we calculated in table 4.23. The result means in 2011, the change of asset turnover have mainly caused change of return on equity, and contributed to the change in return on equity at most. Next, we will analyze the change of 2012.

Table 4.25 Result of 2011-2012 by gradual change method

	2011	2012	Δa	ΔX_{ai}	order
a_1=EAT/Rev	0.0677	0.0532	-0.0145	-0.0141	3
a_2=Rev/Assets	0.5992	0.5328	-0.0664	-0.0057	2
a_3=Assets/Equity	1.6177	2.0360	0.4183	0.0119	1
Sum	x	x	x	-0.0080	

Source: Own calculation.

We can see from table 4.25, the absolute change in return on equity caused by the change in net profit margin and assets turnover is negative, but financial leverage is positive, that means, in 2012, the financial leverage has work and made a positive effect to company. And the most impact component ratio is financial leverage. Here the sum of absolute change in the ROE caused by the change in each component ratio is equal to the total absolute change we calculated in table 4.23. The result means in 2012 the change of financial leverage have mainly caused change of return on equity, and contributed to the change in return on equity at most.

Table 4.26 Result of 2012-2013 by gradual change method

	2012	2013	Δa	ΔX_{ai}	order
a_1=EAT/Rev	0.0532	0.0549	0.0017	0.0021	2
a_2=Rev/Assets	0.5328	0.6072	0.0744	0.0077	1
a_3=Assets/Equity	2.0360	1.9432	-0.0928	-0.0026	3
sum	x	x	x	0.0071	

Source: Own calculation.

In table 4.26, the absolute change in return on equity caused by the change in net profit margin and assets turnover is positive, that means the absolute change is increased in 2013, but financial leverage is negative, that means, in 2013, the financial leverage has not worked efficiency and lead a decrease on return on equity. And the most impact component ratio is assets turnover.

Table 4.27 Result of 2013-2014 by gradual change method

	2013	2014	Δa	ΔX_{ai}	order
a_1=EAT/Rev	0.0549	0.0547	-0.0002	-0.0002	1
a_2=Rev/Assets	0.6072	0.5955	-0.0116	-0.0012	3
a_3=Assets/Equity	1.9432	1.9239	-0.0193	-0.0006	2
sum	x	x	x	-0.0021	

Source: Own calculation.

From table 4.27, in 2014, similar to 2013, the net profit margin has become the component ratio which most affect the return on equity. This made the return on equity is reflect the negative impact. But as a company which need more investment on develop infrastructure and technology, it is not a big problem on China Telecom Corporation Limited.

4.3.2 Logarithmic decomposition method

After we use methods of gradual change, we need to see if there any difference between other methods in results. Based on the formula, we will calculate the result by using logarithmic decomposition method.

Table 4.28 Result of 2010-2011 through logarithmic decomposition method

	2010	**2011**	I_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0703	0.0677	0.9630	-0.0025	2
a_2=Rev/Assets	0.5497	0.5992	1.0900	0.0057	1
a_3=Assets/Equity	1.7475	1.6177	0.9257	-0.0051	3
sum	x	x	x	-0.0019	

Source: Own calculation.

The advantage of logarithmic decomposition method is that just need one formula for the impact quantification regardless of how many component ratios we have, here we can see from table 4.28, it is same as the result of method of gradual change, assets turnover has the

most impact on basic ratio.

Table 4.29 Result of 2011-2012 through logarithmic decomposition method

	2011	2012	I_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0677	0.0532	0.7858	-0.015	3
a_2=Rev/Assets	0.5992	0.5328	0.8892	-0.007	2
a_3=Assets/Equity	1.6177	2.036	1.2586	0.014	1
sum	x	x	x	-0.008	

Source: Own calculation.

From table 4.29, in 2012, the result of net profit margin and assets turnover is negative, the financial leverage has become the component ratio which most affect the return on equity. This made the return on equity is reflect the slightly negative impact. Next is the change over 2013. Based on the data we calculated.

Table 4.30 Result of 2012-2013 through logarithmic decomposition method

	2012	**2013**	I_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0532	0.0549	1.0320	0.0019	2
a_2=Rev/Assets	0.5328	0.6072	1.1396	0.0080	1
a_3=Assets/Equity	2.036	1.9432	0.9544	-0.0029	3
sum	x	x	x	0.0071	

Source: Own calculation.

We can see from table 4.30, the absolute change in return on equity caused by the change in net profit margin and assets turnover is positive, but financial leverage is negative, that means, in 2013, the financial leverage has not work efficiency and made a negative effect to company. The result means in 2013, the change of financial leverage have mainly caused change of return on equity, and contributed to the change in return on equity at most.

Table 4.31 Result of 2013-2014 through logarithmic decomposition method

	2013	**2014**	I_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0549	0.0547	0.9964	-0.0002	1
a_2=Rev/Assets	0.6072	0.5955	0.9807	-0.0012	3
a_3=Assets/Equity	1.9432	1.9239	0.9901	-0.0006	2
sum	x	x	x	-0.0021	

Source: Own calculation.

The result in table 4.31 is same as the result we calculated by gradual change method, the order is also same, the assets turnover has the most impact on basic ratio.

After the comparison, the result of gradual change method and logarithmic decomposition is almost same, but there must be the difference on the data. Consider about the convenient way, may be logarithmic decomposition method is better.

Last method of decomposition analysis is functional decomposition method, it works with the relative changes in basic and component ratios, here we need to calculate the relative change based on 2.29, shows in table 4.32.

Table 4.32 Relatively change of 4 groups

	2010-2011	2011-2012	2012-2013	2013-2014
ΔROE^{REL}	-0.0281	-0.1218	0.1231	-0.0324

4.3.3 Functional decomposition

We will use the relative change to calculate the impact of each component ratio on the basic ratio.

Table 4.33 Result of 2010-2011 by functional decomposition

	2010	**2011**	R_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0703	0.0677	-0.0370	-0.0025	2
a_2=Rev/Assets	0.5497	0.5992	0.0900	0.0058	1
a_3=Assets/Equity	1.7475	1.6177	-0.0743	-0.0051	3
sum	x	x	x	-0.0019	

Source: Own calculation.

Table 4.34 Result of 2011-2012 by functional decomposition

	2011	**2012**	R_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0677	0.0532	-0.2142	-0.0150	3
a_2=Rev/Assets	0.5992	0.5328	-0.1108	-0.0073	2
a_3=Assets/Equity	1.6177	2.036	0.2586	0.0144	1
sum	x	x	x	-0.008	

Source: Own calculation.

Table 4.35 Result of 2012-2013 by functional decomposition

	2012	**2013**	R_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0532	0.0549	0.0320	0.0019	2
a_2=Rev/Assets	0.5328	0.6072	0.1396	0.0080	1
a_3=Assets/Equity	2.036	1.9432	-0.0456	-0.0029	3
sum	x	x	x	0.0071	

Source: Own calculation.

Table 4.36 Result of 2013-2014 by functional decomposition

	2013	**2014**	R_a	ΔX_{ai}	order
a_1=EAT/Rev	0.0549	0.0547	-0.0036	-0.0002	1
a_2=Rev/Assets	0.6072	0.5955	-0.0193	-0.0012	3
a_3=Assets/Equity	1.9432	1.9239	-0.0099	-0.0006	2
sum	x	x	x	-0.0021	

Source: Own calculation.

From tables, we can see the results during 2010-2014 calculated by functional decomposition method, and the result of them are all same as the logarithmic decomposition method and method of gradual changes. But the way to calculate by using functional decomposition is too complex, it will take more time than the others, in 2011, the main factor influenced ROE is assets turnover, and in 2012, financial leverage has the most impact on the ROE, then in 2013, similar to 2011, assets turnover become the most impact component ratio of basic ratio. In 2014, the net profit margin work efficiency than the other two components. As mentioned in before, China Telecom Corporation Limited is a company which need to focus on the infrastructure and continue invest on it. The ROE is not a very precise index to figure out if this company is efficiency on it, but if the change of ROE still negative, it need to be strengthen the ability of generate the equity.

5 Conclusion

The goal of this thesis was to evaluate the financial situation of China Telecom Corporation Limited by using of financial report for period 2010-2014.

In this thesis, we describe the financial analysis methodology, then overall understand the profile of the company, the most important part was the practical part where we used the method mentioned in theoretical part to evaluate the company.

Based on the financial report of China Telecom Corporation Limited, we use the financial statement, which includes balance sheet, income statement and cash flow statement to analyze the financial situation of China Telecom Corporation Limited. Methods of analysis are variety, but we can use different methods to know the different sides of the company. By using the common-size analysis, we can know the whole change of China Telecom Corporation Limited, we can also see the total assets keep an increase trend over five years, and the total liabilities has less than before on 2013, China Telecom Corporation Limited has pay part of their obligations, and make more growth on equity and create assets. Liquidity ratios shows the ability to pay the short-term obligation is most efficiency in 2011, but decrease after that, according to that, China Telecom Corporation Limited need to strength their ability to meet their short-term debt for better prestige. And based on the analysis of profitability ratios, we also can see from 2010 to 2012, the operating profit margin ratio is decrease trend, because the strategic did not work efficiency, and China Telecom Corporation Limited blindness to expansion, but the board of directors set up in this year, they make new strategic for reform, and start to create new brand “TianYi”, then the next year the operating profit margin increase. By comparing with China Mobile of the activity ratio, we can see the lack of China Telecom Corporation Limited is the turnover times on operating cycle, as competitors, China Telecom Corporation Limited need to absorb advantage of China Mobile, build a good prestige on telecommunication industry also on the society, and continue correct the unwise strategic. China Telecom Corporation Limited’s shares start listing trade on NYSE on 2002, as an experience company on it, they need to use equity more efficiency, and continue create patent and keep step on develop infrastructure. We can believe China Telecom

Corporation Limited will continue to grow, and lead the telecommunication industry provides better service with their faith “World at your fingertips”.

Bibliography

1) HIGGINS, Robert C. *Analysis for Financial Management*. *10th ed.* New York: McGraw-Hill/Irwin, 2012. 459 p. ISBN 978-0-07-803468-8.
2) ITTELSON, Thomas R. *Financial Statements: A Step-by-Step Guide to Understanding and Creating Financial Reports.* Pompton Plains: Career Press, 2009. 285 p. ISBN 978-1-60163-023-0.
3) ROBINSON, Thomas R. *International Financial Statement Analysis.* Hoboken: Wiley, 2009. 828 p. ISBN 978-0-470-28766-8.
4) DLUHOŠOVÁ, D. et al. (2014). *Financial Management and Decision-making of a Company, Investing, Valuation, Sensitivity, Risk, Flexibility, SAEI, vol. 28.* Ostrava: VSB-TU Ostrava.
5) ZMEŠKAL, Zdeněk, Dana DLUHOŠOVÁ a Tomáš TICHÝ. *Financial models*. 1st English ed. Ostrava: VSB - Technical University of Ostrava, Faculty of Economics, 2004. ISBN 80-248-0754-8.

Electronic Bibliography

6) China Telecom Corporation Limited. *China Telecom: ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 (For the fiscal year ended December 31, 2010-2014)* [online]. [18.10.2015]. Available on http://www.chinatelecom-h.com/en/ir/reports.php
7) China Mobile's official website. Available on http://www.chinamobileltd.com/sc/global/home.php
8) Introduction from Investopedia. Available on http://www.investopedia.com/

List of Abbreviations

EAT: Earnings after tax

EBIT: Earnings before Interests and Taxes

OPM: Operating profit margin

ROE: Return on equity

ROA: Return on assets

Rev.: Revenue

TAT: Total assets turnover

IT: Inventory turnover

ACP: Average collection period

ART: Accounts receivable turnover

EPS: Earnings per share

P/E: Price-to-Earning

NYSE: New York Stock Exchange

Declaration of Utilization of Results from a Bachelor Thesis

Herewith I declare that

- I am informed that Act No. 121/2000 Coll. – the Copyright Act, in particular, Section 35 – Utilization of the Work as a Part of Civil and Religious Ceremonies, as a Part of School Performances and the Utilization of a School Work – and Section 60 – School Work, fully applies to my diploma (bachelor) thesis;
- I take account of the VSB – Technical University of Ostrava (hereinafter as VSB-TUO) having the right to utilize the diploma (bachelor) thesis (under Section 35(3)) unprofitably and for own use ;
- I agree that the diploma (bachelor) thesis shall be archived in the electronic form in VSB-TUO's Central Library and one copy shall be kept by the supervisor of the diploma (bachelor) thesis. I agree that the bibliographic information about the diploma (bachelor) thesis shall be published in VSB-TUO's information system;
- It was agreed that, in case of VSB-TUO's interest, I shall enter into a license agreement with VSB-TUO, granting the authorization to utilize the work in the scope of Section 12(4) of the Copyright Act;
- It was agreed that I may utilize my work, the diploma (bachelor) thesis, or provide a license to utilize it only with the consent of VSB-TUO, which is entitled, in such a case, to claim an adequate contribution from me to cover the cost expended by VSB-TUO for producing the work (up to its real amount).

Ostrava dated 06.05.2016

Feng XiaoShan

Student's name and surname

List of Annexes

Annex 1 Balance sheet of China Telecom Corporation Limited

at 31 December 2010-2014 (Amounts in millions)					
	RMB				
ASSETS	Year				
Non-current assets	**2010**	**2011**	**2012**	**2013**	**2014**
Property, plant and equipment, net	273,845	266,848	371,738	372,222	370,796
Construction in progress	14,243	18,174	32,080	43,806	52,502
Lease prepayments	5,373	26,262	25,742	24,990	24,393
Goodwill	29,877	29,877	29,877	29,877	29,877
Intangible assets	9,852	7,534	8,962	7,662	8,456
Investments in subsidiaries	5,272	6,178	6,078	6,015	6,060
Interests in associates	777	619	564	564	3,554
Investments	849	644	612	1,025	971
Deferred tax assets	10,679	2,945	2,716	2,647	2,943
Other assets	4,367	3,546	4,078	3,800	3,881
Total non-current assets	**355,134**	**362,627**	**482,447**	**492,608**	**503,433**
Current assets					
Inventories	2,000	2,364	3,183	3,203	2,022
Income tax recoverable	1,878	2,375	1,494	306	1,339
Accounts receivable, net	15,923	17,114	17,789	19,326	20,309
Prepayments and other current assets	4,720	4,172	5,135	5,951	7,936
Time deposits with original maturity over three months	373	375	580	30	52
Cash and cash equivalents	19,939	19,905	20,862	8,211	9,616
Total current assets	**44,833**	**46,305**	**49,043**	**37,027**	**41,274**
Total assets	**399,967**	**408,932**	**531,490**	**529,635**	**544,707**
LIABILITIES AND EQUITY					
Current liabilities					
Short-term debt	20,675	9,187	6,476	27,578	43,835
Current portion of long-term debt	10,352	11,766	10,212	20,072	82
Accounts payable	37,620	40,523	64,043	78,199	85,291
Accrued expenses and other payables	51,225	57,363	102,657	65,473	66,423
Income tax payables	198	353	291	201	190
Current portion of finance lease obligations	–			1	–
Current portion of deferred revenues	2,645	2,091	1,651	1,201	1,055

Total current liabilities	**122,715**	**121,283**	**185,330**	**192,725**	**196,876**
Net current liabilities	-77,882	-74,978	-136,287	-155,698	-155,602
Total assets less current liabilities	277,252	287,649	346,160	336,910	347,831
Non-current liabilities					
Long-term debt	42,549	31,150	82,690	62,617	62,915
Finance lease obligations		–	3		
Deferred revenues	3,558	2,712	1,791	1,229	798
Deferred tax liabilities	2,262	1,002	627	505	996
Total non-current liabilities	48,369	34,864	85,111	64,351	64,709
Total liabilities	**171,084**	**156,147**	**270,441**	**257,076**	**261,585**
Equity					
Share capital	80,932	80,932	80,932	80,932	80,932
Reserves	147,951	171,853	180,117	191,627	202,190
Total equity	228,883	252,785	261,049	272,559	283,122
Total liabilities and equity	**399,967**	**408,932**	**531,490**	**529,635**	**544,707**

Annex 2 Income statement of China Telecom Corporation Limited

	2010	**2011**	**2012**	**2013**	**2014**
Operating revenues	219,864	245,041	283,176	321,584	324,394
Operating expenses					
Depreciation and amortization	-52,215	-51,224	-49,666	-69,083	-66,345
Network operations and support	-47,432	-52,912	-65,979	-53,102	-68,651
Selling, general and administrative	-42,130	-48,741	-63,099	-70,448	-62,719
Personnel expenses	-35,529	-39,167	-42,857	-46,723	-50,653
Other operating expenses	-19,106	-28,868	-40,367	-54,760	-47,518
Total operating expenses	-196,412	-220,912	-261,968	-294,116	-295,886
Operating profit	23,452	24,129	21,208	27,468	28,508
Net finance costs	-3,600	-2,254	-1,562	-5,153	-5,291
Investment income	328	40	93	670	6
Share of profits of associates	131	99	78	103	34
Profit before taxation	20,311	22,014	19,817	23,088	23,257
Income tax	-4,846	-5,416	-4,753	-5,422	-5,498
Profit for the year	15,465	16,598	15,064	17,666	17,759
Other comprehensive income for the year:					
Items that may be reclassified subsequently to profit or loss:					
Change in fair value of available-for-sale equity securities	132	-205	228	414	-54
Deferred tax on change in fair value of available-for-sale equity securities	-48	51	57	-104	14
Exchange difference on translation of financial statements of					
subsidiaries outside mainland China	-48	-103	-2	-79	3
Share of other comprehensive income of associates	-25	0	0	5	-3
Other comprehensive income for the year, net of tax	11	-257	-173	236	-40
Total comprehensive income for the year	15,476	16,341	14,891	17,902	17,719
Profit attributable to:					
Equity holders of the Company	15,347	16,502	14,949	17,545	17,680
Non-controlling interests	118	96	115	121	79
Profit for the year	15,465	16,598	15,064	17,666	17,759
Total comprehensive income attributable					

to:					
Equity holders of the Company	15,358	16,245	14,776	17,781	17,640
Non-controlling interests	118	96	115	121	79
Total comprehensive income for the year	15,476	16,341	14,891	17,902	17,719
Basic earnings per share	0.19	0.20	0.18	0.22	0.22
Weighted average number of shares (in millions)	80,932	80,932	80,932	80,932	80,932

Annex 3 cash flow statement of China Telecom Corporation Limited

for the year ended 31 December 2010-2014 (Amounts in millions)					Year
Net cash from operating activities	2010	2011	2012	2013	2014
Profit before taxation	20,908	22,012	19,793	23,088	23,257
Adjustments for:					
Depreciation and amortization	51,656	51,233	49,655	69,083	66,345
Impairment loss on property, plant and equipment	139	–			
Impairment losses for doubtful debts	1,593	1,367	1,612	1,744	2,084
Write down of inventories	87	96	235	360	151
Investment income	-361	-40	-93	-670	-6
Share of profits of associates	-131	-99	-78	-103	-34
Interest income	-287	-405	-591	-361	-304
Interest expense	3,795	2,710	2,154	5,511	5,650
Unrealized foreign exchange (gain)/loss	92	-51	1	3	-55
Loss/(gain) on retirement and disposal of property, plant and equipment	-435	-2,436	-2,429	-1,021	2,287
Operating profit before changes in working capital	77,056	74,387	70,259	74,546	99,375
Increase in accounts receivable	-1,475	-2,546	-2,125	-3,156	-3,594
Decrease/(increase) in inventories	-629	-1,763	-1,185	-955	2,280
Increase in prepayments and other current assets	-1,203	-3,019	-1,025	-1,077	-2,359
(Increase)/decrease in other assets	928	796	484	294	-2
Increase in accounts payable	4,120	6,323	4,987	3,210	6,473
Increase in accrued expenses and other payables	6,003	6,939	6,233	3,148	6,571
Decrease in deferred revenues	-2,259	-1,398	-1,360	-1,014	-573
Cash generated from operations	82,541	79,719	76,268	98,084	108,171
Interest received	292	396	587	358	305
Interest paid	-3,824	-3,084	-2,200	-5,573	-5,693
Investment income received	10	42	23	21	29
Income tax paid	-3,448	-4,064	-4,011	-4,539	-6,407
Net cash from operating activities	**75,571**	**73,009**	**70,667**	**88,351**	**96,405**
Cash flows used in investing activities					
Capital expenditure	-41,597	-48,495	-50,028	-70,921	-80,273
Lease prepayments	-111	-60	-133	-111	-184

Purchase of investments	-41	-6	–	–	-2,990
Proceeds from disposal of property, plant and equipment	2,738	3,234	2,696	1,538	710
Proceeds from disposal of lease prepayments	176	487	255	360	121
Proceeds from disposal of investment	1	1,040	–		
Proceeds from return of investments		10	–		
Net cash inflow/outflow from disposal of a subsidiary		-11	-116	512	–
Purchase of short-term bank deposits	-1,968	-1,804	-2,730	-2,750	-2,566
Maturity of short-term bank deposits	442	1,968	1,804	3,193	3,474
Payment for the payable to China Telecommunications Corporation					
related to the Mobile Network Acquisition (as defined in Note 16)	-5,374	–	–	-14,269	–
Payment for the first installment of the Mobile Network Acquisition	–	–	–	-25,500	–
Net cash used in investing activities	**-45,734**	**-43,637**	**-48,252**	**-107,948**	**-81,708**
Cash flows (used in)/from financing activities					
Principal element of finance lease payments	-18	–		-2	-1
Proceeds from bank and other loans	53,518	23,876	9,702	54,983	53,022
Repayment of bank and other loans	-86,001	-45,329	-24,133	-44,053	-56,819
Payment of dividends	-5,608	-6,174	-5,625	-5,433	-6,198
Payment for the acquisition of non-controlling interests	-27	-1			
Payment for the acquisition price of the Fifth Acquisition		-27	-29	–	–
Payment for the acquisition price of the Sixth Acquisition		–	-48	–	–
Payment of the acquisition price of the Seventh Acquisition		–	–	–	-278
Distribution to China Telecom Group	-535	–	–	–	–
Net cash (distributions to)/contributions from non-controlling interests	-100	-65	331	142	-53
Net cash (used in)/from financing activities	**-38771**	**-27,720**	**-19,802**	**5,637**	**-10,327**
Net increase/(decrease) in cash and cash equivalents	-8,934	1,649	2,613	-13,960	4,370
Cash and cash equivalents at 1 January	34,804	25,824	27,372	30,099	16,070
Effect of changes in foreign exchange rate	-46	-101	-3	-69	-4
Cash and cash equivalents at 31 December	**25,824**	**27,372**	**29,982**	**16,070**	**20,436**